CALIFORNIA ENERGY MARKETS: REFUNDS AND REFORM

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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CALIFORNIA ENERGY MARKETS: REFUNDS AND REFORM

TUESDAY, APRIL 8, 2003

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY POLICY, NATURAL
RESOURCES AND REGULATORY AFFAIRS,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The committee met, pursuant to notice, at 2 p.m., in room 2157, Rayburn House Office Building, Hon. Doug Ose (chairman of the committee) presiding.

Present: Representatives Ose, Sullivan, and Van Hollen.

Staff present: Dan Skopec, staff director; Barbara Kahlow, deputy staff director; Melanie Tory, clerk; Yier Shi, press secretary; Paul Weinberger, minority counsel; Earley Green, minority chief clerk; and Christopher Davis; minority staff assistant.

Mr. OSE. Good afternoon. Welcome to today's hearing of the Subcommittee of Energy Policy, Natural Resources and Regulatory Affairs. Today we are going to look at the California electricity markets' refunds and reform.

We are going to discus two items. First, the actions taken by FERC on March 26th of this year regarding the California energy crisis, and second, the progress California has made in reforming its electricity market structure.

As many of you know, on March 26th, FERC issued a report following its investigation of western energy markets. They concluded that an imbalance of supply and demand, coupled with a flawed market design, created conditions that led to market manipulation in California and other western markets. Consequently, FERC issued several show cause orders that will potentially result in prohibiting violating companies from selling electric power and natural gas at market-based rates.

I support FERC's effort to punish those who have been found to manipulate the market. This sends a strong message to future would-be violators that if you break the rules, you not only will have to refund the money, but you also will not be able to participate in energy markets in the future.

FERC also increased the amount of refunds due to California by taking into account the manipulation that occurred in natural gas markets. The Commission plans to continue to investigate specific acts of market manipulation and make a final ruling on refunds by the end of the summer. I encourage FERC to vigorously and promptly complete its investigation. California and its citizens deserve to get back every dollar that was overcharged during the en-

ergy crisis. It's been almost 3 years since the crisis erupted. It's time to refund the overcharges so Californians can get the relief they deserve.

The second purpose of this hearing is to discuss efforts to reform California's electricity market. While politicians from all corners can argue about who owes what to whom, we must not lose focus of one important point; that is, a leading cause of the energy crisis of 2000 and 2001 was a fundamental lack of electricity supply and a seriously flawed market design. Almost 3 years later, California has failed to fix this problem and its electricity market still needs reformation.

In February 2002, this subcommittee held a hearing to discuss the leading market reform proposal known as Market Design 2002. At that hearing, I made the following statement: "In reality, California is not out of the woods yet, not by a long shot. As the witnesses at today's hearing will tell you, the fundamental factors that exacerbated the energy crisis are still with us today. California still lacks adequate energy supply. Our transmission system is old and overburdened, and most importantly, the structure of the electricity market is dysfunctional. The market suffers from inefficiencies in terms of pricing, transparency, transmission and settlement policies."

To my great regret, this statement is almost as true today as it was then. Since last year's hearing, the California Independent System Operator has introduced Market Design 2002, which we are hereafter going to refer to as MD02. It's CAISO's comprehensive proposal to reform California's electricity market. I applaud the efforts of CAISO to recognize the market flaws in the current system and attempt to solve them. However, I remain concerned that the reform process is moving too slowly. Time delayed is money lost for Californians. Already, several implementation deadlines have been pushed back.

I am particularly concerned about the delay in the resource adequacy standards that are central to any market reform. One of the key regulatory failures of California's restructuring was the California Public Utility Commission's refusal to provide utilities with the ability to enter long-term contracts under safe harbor provisions. Resource adequacy would return the obligation to serve customers to the utilities by requiring utilities to produce adequate levels of power to serve its customers, plus a certain reserve amount. Utilities could meet these standards by signing long-term contracts with generators, thereby providing financial certainty and incentive to build more energy supply in California.

However, this key component has been pushed back to the final phase of MD02. The CAISO is currently awaiting a rulemaking by the CPUC before it proceeds. We have been waiting for that rulemaking since April 2002, when this subject first came up.

Given the abysmal history of the CPUC regarding long-term contracts, I am seriously concerned about the fate of this particular matter. In today's hearing, I have asked the witnesses to discuss the progress of MD02. I would like to direct the witnesses' attention to a January 2003 report produced by the Public Policy Institute of California entitled the California Energy Crisis: Causes and Public Options. This report does an excellent job of enunciating the

need for electricity market reform. The report states that any market reform must meet the following goals: one, lower prices; two, system reliability; three, efficient use of resources; four, administrative feasibility; and five, environmental enhancement and protection.

I wholeheartedly agree with these goals and ask the witnesses to keep them in mind today as we discuss the details of MD02. I intend for this to be an opportunity to discuss the details of reform and debate possible alternatives. But this process must go forward. It must. California cannot continue to live in an energy purgatory where we neither know right from wrong, up from down, or no power from power. The State's economy remains soft and today energy prices are low.

But this will not continue forever. This is an opportunity we need to seize. We need to keep in mind that it takes years to propose, site and build a power plant. Up and down the State, power plant construction is being delayed and companies are scrapping plans to build more generation. Energy companies cite political and regulatory uncertainty as a principal obstacle to new energy supply. Wall Street refuses to invest in such an unstable environment.

Yet experts predict that California will experience shortages again in a few short years. It is therefore essential that we get on with the reform process in order to encourage investments in energy generation and transmission. A stable marketplace with clear, rational rules is the only way to supply the lowest cost, most environmentally friendly energy that Californians deserve. We simply cannot afford to wait any longer.

I want to welcome our witnesses today. They include Patrick Wood III, the chairman of the Federal Energy Regulatory Commission; Terry Winter, the president and CEO of California Independent System Operator; Karen Tomcala, the vice president of Regulatory Relations for PG&E; Gary Ackerman, the executive director for the Western Power Trading Forum; Jan Smutny-Jones, the executive director of the Independent Energy Producers; and George Fraser, a personal friend of mine who is general manager of Northern California Power Agency.

[The prepared statement of Hon. Doug Ose follows:]

Chairman Doug Ose
Opening Statement
California Energy Markets: Refunds and Reform
April 8, 2003

The purpose of today's hearing is two-fold: to discuss actions taken by the Federal Energy Regulatory Commission (FERC) on March 26, 2003, regarding the California energy crisis, and to review the progress California has made in reforming its electricity market.

On March 26th, FERC issued a report following its investigation of Western energy markets. FERC concluded that an imbalance of supply and demand, coupled with a flawed market design, created conditions that led to market manipulation in California and other Western markets. Consequently, FERC issued several "show cause" orders that will potentially result in prohibiting violating companies from selling electric power and natural gas at market-based rates. I support FERC's effort to punish those who have been found to manipulate the market. This sends a strong message to future would-be violators. If you break the rules, you not only will have to refund the money but also will not be able to participate in energy markets in the future.

FERC also increased the amount of refunds due to California by taking into account the manipulation that occurred in natural gas markets. The Commission plans to continue to investigate specific acts of market manipulation and make a final ruling on refunds by the end of the summer. I encourage FERC to vigorously, but promptly, complete its investigation. California and its citizens deserve to get back every dollar that was overcharged during the energy crisis. It has been almost three years since the crisis erupted. It is time to refund the overcharges, so Californians can receive the relief they deserve.

The second purpose of this hearing is to discuss efforts to reform California's electricity market. While politicians of all stripes can argue about who owes what to whom, we must not lose focus of one important point. A leading cause of the energy crisis of 2000-01 was a fundamental lack of electricity supply and a flawed market design. Tragically, almost three years later, California has failed to fix this problem and reform its electricity market. In February 2002, this Subcommittee held a hearing to discuss the leading market reform proposal, know as Market Design 2002. At that hearing, I made the following statement:

> In reality, California is not out of the woods yet. Not by a long shot. As the witnesses at today's hearing will tell you, the fundamental factors that exacerbated the energy crisis are still with us today. California still lacks adequate energy supply, our transmission system is old and overburdened and, most importantly, the structure of the electricity market is dysfunctional. The market suffers from inefficiencies in terms of pricing, transparency, transmission and settlement policies.

Unfortunately, this statement is almost as true today as it was then. Since last year's hearing, the California Independent System Operator (CAISO) introduced Market Design 2002 (MD'02), its comprehensive proposal to reform California's electricity market. I applaud the efforts of the CAISO to recognize the serious market flaws in the current system and attempt to solve them.

However, I remain concerned that the reform process is moving too slowly. Already, several implementation deadlines have been pushed back.

I am particularly concerned about the delay in the resource adequacy standards that are central to any market reform. One of the key regulatory failures of California's restructuring was the California Public Utilities Commission's (CPUC) refusal to provide utilities with the ability to enter into long-term contracts. Resource adequacy would return the "obligation to serve" customers to the utilities, by requiring utilities to procure adequate levels of power to serve its customers, plus a certain reserve amount. Utilities could meet these standards by signing long-term contracts with generators, thereby providing financial certainty and incentive to build more energy supply in California.

However, this key component has been pushed back to the final phase of MD'02. The CAISO is currently awaiting a rulemaking by the CPUC before it proceeds. Given the abysmal history of the CPUC regarding long-term contracts, I am concerned about the fate of this crucial issue.

In today's hearing, I have asked the witnesses to discuss the progress of MD'02. I would like to direct the witnesses' attention to a January 2003 report produced by the Public Policy Institute of California entitled, "The California Electricity Crisis: Causes and Policy Options." This report does an excellent job of enunciating the need for electricity market reform. The report states that any market reform must meet the following goals: lower prices, system reliability, efficient use of resources, administrative feasibility, and environmental protection. I wholeheartedly agree with these goals and ask the witnesses to keep them in mind today as we discuss the details of MD'02.

I intend for this to be an opportunity to discuss the details of reform and debate possible alternatives. But, make no mistake about it, this process must go forward. California cannot continue to live in an energy purgatory. The State's economy is soft and energy prices are low. But, this will not continue forever.

We need to keep in mind that it takes years to propose, site, and build a power plant. Up and down the State, power plant construction is being delayed and companies are scrapping plans to build more generation. Energy companies cite political and regulatory uncertainty as the principal obstacle to new energy supply. Wall Street refuses to invest in such an unstable environment. Yet, experts predict that California will experience shortages again in a few short years. It is, therefore, essential that we get on with the reform process in order to encourage investments in energy generation and transmission. A stable marketplace, with clear, rational rules, is the only way to supply the lowest cost, most environmentally clean energy that Californians deserve. We simply cannot afford to wait any longer.

I want to welcome the witnesses today. They include: Patrick Wood III, Chairman, FERC; Terry Winter, President and Chief Executive Officer, CAISO; Karen Tomcala, Vice President, Regulatory Relations, Pacific Gas and Electric Company; Gary Ackerman, Executive Director, Western Power Trading Forum; Jan Smutny-Jones, Executive Director, Independent Energy Producers; and, George Fraser, General Manager, Northern California Power Agency.

Mr. OSE. I'd like to recognize the gentleman from Oklahoma for the purpose of an opening statement.

Mr. SULLIVAN. Thank you, Chairman Ose, for holding this hearing. It is important that the causes behind the California energy crisis be considered. Coming from a State with an interest in energy markets, it is important to me that the truth comes out about the situation. Finger pointing by both sides does the consumer no good in the end.

One of the recurring issues in the debate of California's energy crisis is whether or not generators physically withheld power in order to drive up prices. California has repeatedly claimed that generators did withhold power. In one case, where FERC staff has reviewed California's withholding allegations and found them to be overwhelming false and inaccurate, on September 17, 2002, the California Public Utilities Commission issued a report claiming that generators had withheld power on the 6-days when California suffered blackouts and brownouts. They claimed that had generators made this power available, blackouts could have been averted. The FERC staff analysis refuted the CPUC's allegations.

I hope that FERC will look carefully to make sure that similar claims now being made by California are not equally false. I look forward to hearing Mr. Wood's statement and hope that it will shed light on the current state of investigations. I yield back the balance of my time.

Mr. OSE. I thank the gentleman.

As many of you may realize, this committee is an investigative committee. We routinely swear in our witnesses. So Chairman Wood, if you'd rise, please, raise your right hand.

[Witness sworn.]

Mr. OSE. Let the record show that the witness answered in the affirmative.

Once again, we welcome to our panel the distinguished chairman of the Federal Energy Regulatory Commission, Patrick Wood III. Chairman Wood, you are recognized for the purpose of a statement for 5 minutes.

STATEMENT OF PATRICK WOOD III, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

Mr. WOOD. Thank you, Chairman Ose, Mr. Sullivan. I appreciate the opportunity.

I can't help but be struck by the juxtaposition of the two items before us today, which are a look at what happened in the past and then a view toward the future, and the importance of making sure that those two items are connected. Certainly a large part of the time I've spent since I think I saw you last, Mr. Chairman, is really trying to bring to a close our investigation on the activities in the western markets.

Shortly before I even joined the Commission, the Commission had reviewed the underlying fundamental supply shortfalls as an issue and looked at the market design in December 2000, the prior Commission. We have one commissioner with us today on our Commission that was there at the time. But analysis showed that those two parts of the problem were a significant aspect of what went wrong in California.

What we did after I joined the Commission and we began to explore these issues further was, we recognized that there were, in fact, those two conditions of significant supply shortfalls and flawed market design implementation, that those did create an environment in which market manipulation could happen. And, in fact, over the last year, a significant part of our staff, with resources spent for outside consultants to assist us in this effort, reviewing tremendous amounts of market data, actually concluded that in fact there have been instances, in fact some cases, very notable instances of manipulations in the power and gas markets that took advantage of this supply and market rules failure.

So our report came out last Wednesday. As a consequence of that report, the staff recommended that the Commission take action on 31 different items relating from alterations of how we calculate refunds in the ongoing California refund case to recommendations to pursue causes of action against certain market participants for violations of the rules to a number of prospective fixes to make sure that these issues never show up again in California or in any other State.

So the Commission is currently involved in implementing all those recommendations. We might change a few of them based on feedback from parties who have provided some commentary on this, and also based on our own assessment. But our staff pursued this effort independently, provided this report back to the Commission late last month. Actually, for most of the month, we had the opportunity to review this and digest it.

And, I do have to say, I have some reservations about the activities that are reported here. I think it's without question that some of the behavior of market participants that was analyzed, identified and I think fairly balanced throughout the staff report is the kind of behavior that ought to be, if it's not illegal now it ought to be. So we are taking actions to make sure that our rules reflect, on a going forward basis, the type of things that I would have hoped good common sense would have kept people from doing. But quite frankly, it wasn't in some cases written down that some of these issues were wrong. And, it makes it difficult to tell customers that we are trying to do justice when in fact we cannot reach to activities that we all acknowledge are wrong.

Looking forward, I do remember our visit back in Sacramento at the hearing we had last year with a number of our same witnesses today, Mr. Chairman. And, I, like you, am concerned that while we've had a lot of discussion, we don't have the Market Design 2002 implemented. It's my hope that, even in 2003, that we could get Market Design 2002 implemented. But I am concerned that even that time line may slip.

It is critical to get these issues addressed so that these types of opportunities for manipulation and fraud do not ever make themselves profitable again, even in a stressed market, which California has had, and may again have in the future. Good rules can prevent excessive behavior from manifesting itself.

So it's my hope that certainly from the discussions today and the activities that the market participants are pursuing, which I think have been reported on in the witnesses' testimony, we can make a lot of progress to ensure this never happens again. Thank you.

[The prepared statement of Mr. Wood follows:]

Summary of Testimony of
Pat Wood, III
Chairman, Federal Energy Regulatory Commission
Before the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
Committee on Government Reform
United States House of Representatives
April 8, 2003

My testimony addresses the Commission's recent ruling in the California refund proceeding, the Commission Staff's Final Report on Price Manipulation in Western Markets, the Commission's assessment of the current California electricity market, progress on reforming California's electricity market, and draft legislation, H.R. 964, which would provide the Commission with additional penalty and refund authority.

Competitive energy markets require three key elements: adequate infrastructure, efficient market rules and vigilant market monitoring and enforcement. The California electricity crisis in 2000-2001 has proven the need for these three elements. The major factors contributing to the electricity crisis in California were insufficient infrastructure, dysfunctional market rules, and inadequate market oversight and enforcement. These and other factors caused wholesale prices for spot power during the crisis to be unjust and unreasonable.

The Commission has taken steps to remedy these unjust and unreasonable prices through refunds. The Commission's order will increase refunds significantly compared to the earlier recommendation by a Commission Administrative Law Judge. In addition, the Commission has taken, and will continue to take, aggressive action in response to the Commission Staff's findings and recommendations following its investigation into market manipulation in the West during the California electricity crisis. The Commission has proposed to revoke market-based rates for several companies and is seeking public comment on other possible actions.

I support the provisions in H.R. 964, because they would provide greater customer protection by changing the refund effective date under Federal Power Act section 206, extending refund liability, and increasing penalty provisions.

Testimony of
Pat Wood, III
Chairman, Federal Energy Regulatory Commission
Before the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
Committee on Government Reform
United States House of Representatives
April 8, 2003

I. Introduction and Summary

Mr. Chairman and Members of the Subcommittee:

Thank you for inviting me to testify on the Commission's rulings on California refunds, the Commission Staff's Final Report on Price Manipulation in Western Markets (Final Report), the Commission's assessment of the current California electricity market, progress on reforming California's energy market, and H.R. 964, a bill giving the Commission additional penalty and refund authority.

Competitive energy markets require three key elements: adequate infrastructure, efficient market rules and vigilant market monitoring and enforcement. The California electricity crisis has proven the need for all three elements. The major factors contributing to the electricity crisis were insufficient infrastructure, dysfunctional market rules, and inadequate market oversight and enforcement. These and other factors caused wholesale prices for spot power during the crisis to be unjust and unreasonable.

My testimony will discuss the action the Commission, for its part, has taken to remedy these unjust and unreasonable prices through refunds. I will also discuss the Commission Staff's findings and recommendations on market manipulation and the

actions the Commission will take in response. Finally, I will address H.R. 964's provisions on penalties and refunds and the importance of adopting these changes.

While the Commission has a major role in these aspects of California's bulk power markets, long-term solutions depend on market participants and a strong Federal-State partnership. The addition of generation and transmission infrastructure, for example, and creating clear price signals and demand response options for end users, are largely within the control of others, including the State of California. The Commission will do everything within its control to ensure efficient market rules, to actively monitor markets to make sure that everyone follows the rules, and to encourage the development of much-needed infrastructure, but action by others is also needed.

II. California Refund Proceeding

In December 2002, after an extensive hearing involving more than 100 parties, in a proceeding spanning nearly 18 months, an Administrative Law Judge (ALJ) found that power suppliers owe the California Independent System Operator Corporation (CAISO) and California Power Exchange Corporation (Cal PX) an estimated $1.8 billion in refunds. On March 26, 2003, the Commission issued an order adopting many of the ALJ's findings. However, the Commission used a different method of calculating gas costs in its formula for determining just and reasonable spot prices. Instead of the published indices for gas prices adopted by the ALJ (and used previously by the Commission), the Commission adopted the Commission Staff's recommendation in its Final Report to base the gas costs on producing-area prices plus an allowance for

transportation costs. A generator will be allowed to recover its gas costs above this level only if it documents those costs. This method strikes a balance between protecting customers from prices based on manipulation in spot gas markets and ensuring that generators recover the costs they actually paid. Using this method will increase significantly the amount of refunds paid to California. The exact amount of refunds will be determined this summer, after the Commission receives and evaluates gas cost documentation from power sellers, and the complex calculations are completed.

III. Commission Staff's Final Report

In an order issued on February 13, 2002, the Commission directed its staff to investigate whether Enron Corporation, or any other entity participating in the wholesale energy markets in the West, had manipulated prices for electricity or natural gas, or otherwise exercised undue influence over wholesale electricity prices, since January 1, 2000. Pursuant to this order, the Commission Staff conducted an extensive investigation using data requests, depositions, and other fact-finding tools.

On March 26, 2003, the Commission Staff released its Final Report. In the Final Report, the Commission Staff found evidence of significant market manipulation in Western energy markets during 2000 and 2001. However, the Commission Staff noted that this evidence does not alter the Commission's earlier findings that significant supply shortfalls and a flawed market design were the root causes of the California market meltdown. In the Final Report, the Commission Staff noted that, for the first two years of its operation, the California market performed well and saved the state's customers

billions of dollars. But after the Pacific Northwest could no longer provide abundant supplies of low-cost hydropower to the regional market, the effects of too little infrastructure and inefficient market rules adversely affected wholesale prices.

A key conclusion in the Final Report was that markets for natural gas and electricity in California are inextricably linked. According to the Final Report, extraordinary increases in spot gas prices contributed to the unprecedented price increase in the electricity market. Dysfunctions in the natural gas market appeared to stem, in part, from efforts to manipulate price indices compiled by trade publications, including reporting of false data and wash trading. Also, large-volume, rapid-fire trading by a single company, in what was incorrectly assumed to be a liquid market, increased the reported natural gas prices in California. As a result, the Commission Staff reiterated the recommendation in its August 2002 Initial Report on Price Manipulation in Western Markets that the Commission should alter the method for calculating gas costs in the California refund proceeding discussed above.

In addition, the Final Report recommended that many trading strategies used by Enron and other companies be found to constitute a violation of anti-gaming provisions of the Commission-approved tariffs for the CAISO and Cal PX. The Commission Staff recommended that the Commission initiate proceedings to require those companies to disgorge profits associated with these practices. This disgorgement would affect activities beginning January 1, 2000, even before the refund period began on October 2,

2000. Further, any disorgements would be in addition to the refund amounts resulting from the California refund proceeding.

The Commission Staff also concluded that prices in the California spot markets were affected by economic withholding and inflated bidding. The Commission Staff found that such behavior violated the anti-gaming provisions of the CAISO and Cal PX tariffs and recommended proceedings to require disgorgement of profits associated with these inflated prices.

Based on the Final Report, the Commission has taken, or will soon take, a number of steps to reduce the possibility that these problems will recur. These actions include:

1. Revocation of Authorizations

In response to the apparent abuses of California's market rules, including the submission of false information, the Commission has already issued two show cause orders. The Final Report contained evidence that Reliant Energy Services, Inc. and BP Energy Company appeared to have engaged in coordinated efforts to manipulate electricity prices, and that Enron Power Marketing, Inc. and Enron Energy Services, Inc. engaged in gaming practices and failed to inform the Commission in a timely manner of significant changes in their market shares. Based on this evidence, the Commission issued orders directing these four companies to explain why the Commission should not revoke their authority to sell power at market-based rates. Also based on evidence in the Final Report, the Commission directed eight gas marketers, Bridgeline Gas Marketing, L.L.C., Citrus Trading Corporation, ENA Upstream Company, LLC, Enron Canada

Corp., Enron Compression Services Company, Enron Energy Services, Inc., Enron MW, L.L.C., and Enron North America Corp., to show cause why the Commission should not terminate their blanket marketing certificates under the Commission's Natural Gas Act (NGA) jurisdiction. The companies' responses are due by April 16, 2003. Upon review of the evidence, if the Commission finds that such action is warranted, it will revoke their authorizations or terminate their blanket certificates.

2. Generic Restrictions and Reporting Requirements

The Commission will soon initiate a generic proceeding on whether to impose certain restrictions and reporting requirements on all blanket certificates for sales of natural gas and market-based rate authorizations for sales of wholesale power. These restrictions and reporting requirements include: explicit guidelines or prohibitions for trading natural gas under Commission blanket certificates; reporting and monitoring requirements for sellers of natural gas under blanket certificates; and restrictions on the submission of false information or omission or material information as a condition of granting market-based rate authorizations, natural gas blanket certificates, or service under an open access transmission tariff.

3. Reporting of Price Indices

The Commission Staff concluded that published indices of natural gas prices in or near California were not reliable. Five entities have already admitted that their traders provided false information on natural gas transactions. Based on responses to data

requests, it appeared that other entities may also have engaged in similar behavior. The Commission Staff concluded that the publishers of gas price indices lack systematic reporting procedures and internal verification processes.

These indices are often relied upon by market participants and sometimes are used in Commission-regulated agreements. To avoid reliance on inaccurate indices in jurisdictional agreements, the Commission intends to initiate one or more proceedings on whether to: (1) condition all electric market-based rates and natural gas blanket marketing certificates on the companies providing complete and accurate information to publishers of price indices and retaining all data needed to reconstruct the indices for three years; (2) require that any published price indices for Commission-jurisdictional transactions be subject to audit; and (3) encourage standard product definitions for published natural gas and electricity price indices and standard methods of calculation. In addition, the Commission intends to adopt its Staff's recommendations that certain companies demonstrate that their internal processes for reporting have been corrected (or that they no longer sell natural gas at wholesale); the employees who participated in the manipulations have been disciplined; they have a clear code of conduct on reporting prices; and, all trade data reporting will be done by an entity within the company that does not have a financial interest in the published index.

4. Wash Trading

The Commission will propose specific rules banning any form of prearranged wash trading and prohibiting the reporting to industry indices of any trades between affiliates.

5. Electronic Trading Platforms

The Commission intends to propose that blanket gas marketing certificates, as well as electric market-based rates, be conditioned to require that sellers who use trading platforms use only those trading platforms that agree to provide the Commission with full access to trade reporting. The trading platforms must also agree to appropriate monitoring requirements.

6. Other Gaming and Economic Withholding

The Final Report found that a number of entities, either individually or with others, appear to have used the "Enron trading strategies" and to have engaged in economic withholding and inflated bidding. The Final Report reflects the Commission Staff's view that such conduct violates the tariffs of the CAISO and Cal PX. Accordingly, the Final Report recommended that the Commission issue show cause orders proposing to require these companies to disgorge the profits obtained through the claimed violations.

In response to this recommendation, on April 2, 2003, the Commission issued an order providing for interested persons to submit briefs addressing the Commission Staff's interpretation of these tariffs. After receiving and analyzing these briefs (as well as

responses filed to the "100 days evidence"), the Commission will act on the Final Report's recommendations regarding these show cause orders.

7. Physical Withholding

On September 17, 2002, the California Public Utilities Commission (CPUC) released a report concluding that, if certain generators had operated their available capacity, the blackouts experienced in California during its energy crisis could have been largely avoided. In conjunction with an overall review of the California energy crisis, the Commission Staff undertook an analysis of the CPUC report and conducted an extensive review of the actual CAISO data for the dates when blackouts occurred. The Commission Staff concluded that 87 percent of the power determined in the CPUC report to have been withheld was actually accounted for and that the remaining 13 percent would not have averted firm service interruptions. However, the Commission is continuing to examine specific claims of physical withholding and, on March 26, 2003, Commission Staff sent a data request to a number of generators seeking additional information on alleged physical withholding.

IV. Other Pending Proceedings

During the Commission's March 26, 2003 public meeting, the Commissioners discussed two pending proceedings in which complainants seek to modify long-term contracts for wholesale power signed during the Western energy crisis. The

Commissioners also discussed a complaint involving bilateral spot power sales in the Pacific Northwest during the crisis.

With respect to the long-term contracts, the Commission will be acting on those within the next two months. On the spot power sales in the Pacific Northwest, I expressed support for directing the parties to engage in settlement judge procedures for a limited period of time and, if those efforts do not succeed, requiring briefing by the parties on the unresolved issues in the case. The Commission has not issued orders on these cases yet, but intends to do so soon.

V. Assessment of Current California Bulk Power Markets

California's power needs this summer will be met by a combination of in-state generating resources and imported energy from the Northwest and Southwest states. According to the California Energy Commission, California is forecasting a peak electric demand this year that will be approximately four percent greater than in the summer of 2000. Since 2000, in-state generating resources have grown by 6,000 megawatts or nine percent. West-wide resources have grown by 16,000 megawatts, also nine percent in the same period.

The California electricity market is dependent, not only on its own power generating resources, but also West-wide resources. Neighboring states have historically provided up to 18 percent of California's electricity. Hydroelectric production in the Northwest is projected to be approximately 85 percent of average levels this year and may reduce the amount of electricity available for export to California. The Commission

continues to monitor Northwest climatology, energy supplies, and exports to California. The actual level of electricity exports will be sensitive to variations in electricity demand, e.g., demand could be higher than forecast if there is hotter than normal weather or substantially increased economic activity.

The following factors will help limit California's exposure to any reduction in Northwest hydropower-generated electricity supplies this summer:

- California is forecast to produce about 90 to 100 percent of normal levels of electricity from its own in-state hydropower facilities.
- The California investor-owned utilities have been assigned long-term power contracts that the California Department of Water Resources originated in 2001. Thus, the utilities will rely substantially less than in previous years on spot market purchases to meet their peak supply needs this summer.
- Demand response programs have helped limit California's demand growth.

VI. California's Market Redesign

In May 2002, the CAISO filed a comprehensive set of market improvements known as Market Design 2002, or MD02. The CAISO initially proposed to implement MD02 in various phases (described below) over a period of about 18 months, starting in October 2002. Although the phases are proposed to be implemented sequentially, they are designed to work together. The CAISO has subsequently requested several changes

to its MD02 proposal, as well as a delay in the implementation plan.

So far, only elements of Phase 1 of MD02 have been implemented. The other phases, however, are just as important in preventing a recurrence of the dysfunctions and abuses that occurred during the California energy crisis. While the enforcement efforts undertaken since the crisis have reduced the likelihood of certain problems, the best approach is to make sure the market rules work well, encourage development of infrastructure and prohibit or discourage inappropriate behavior by market participants. The other phases of MDO2 are critical in achieving these objectives.

Phase 1A - Market Power Mitigation: Phase 1A consists of revised market power mitigation measures (which were implemented on October 30, 2002). The mitigation plan has three main elements: (1) a "must-offer" provision requiring generators to offer uncommitted generation; (2) a bid cap of $250 per MWh; and (3) an Automatic Mitigation Procedure (AMP) designed to prevent economic withholding. The "must-offer" requirement and the bid cap apply West-wide; the AMP procedures apply only to bids in the CAISO market.

The AMP procedures, which were fashioned after similar mitigation procedures used in other markets, apply a three-part test to bids received by the CAISO. The first threshold for imposing mitigation under the AMP procedures is whether the market clearing price (the highest bid accepted in a given period) exceeds $91.87. If so, the second threshold is to compare each bid against the bidder's latest three-month bid history. If a bid exceeds this baseline by the lower of $100 per MWh or 200 percent, the

third threshold is applied. Under this step, the question is whether the bid will raise the market clearing price by the lower of $50 or 200 percent. If so, the bid is mitigated.

Phase 1B - Real-Time Economic Dispatch: This provision consists of more closely integrating the economic and physical factors that dictate which generating units the CAISO will dispatch to meet real-time demands on the grid. Phase 1B also includes uninstructed deviation penalties, whereby the CAISO can impose penalties on generators that fail to respond to dispatch instructions outside of a reasonable range.

Phase 2 - Integrated Forward Market: The CAISO has proposed to develop a day-ahead market that will simultaneously clear three markets (energy, congestion management and ancillary services) as one market. This day-ahead market offers several advantages: resources will be procured *before* real-time, thereby increasing reliability, price transparency and financial certainty; the cost to California customers will be minimized through more efficient selection of generating units; and only feasible energy transactions will be scheduled, thus reducing the opportunity for gaming in those markets. Phase 2 also includes various changes to the ancillary services, hour-ahead and real-time markets.

Phase 3 - Locational Marginal Pricing (LMP): Phase 3 will use a precise model of the grid to determine the pricing on the grid in various locations or "nodes." The shift from the current three-zone system to a more detailed and precise nodal system will require new market rules and computer systems. The current three-zone system only recognizes transmission bottlenecks between the zones, effectively concealing bottlenecks

within each zone (known as "intra-zonal congestion"). The implementation of a nodal system with LMP will largely alleviate the concerns about intra-zonal congestion that arise when a zonal system is used.

Phase 3 has several advantages, including: (1) allowing a more efficient use of the existing transmission system; (2) encouraging rational congestion management; (3) providing transparent price signals for efficient location of transmission and generation assets; (4) reducing the opportunities for Enron-type gaming; and (5) better representing the physical realities of the existing transmission facilities and providing for more accurate modeling and reliable use.

Future Phase - Resource Adequacy Requirement: This requirement would provide for forward contracting and resource commitment to ensure an adequate supply to meet the expected demand plus reserve margins. The State of California Inter-agency Working Group is currently discussing the best method of implementing a resource adequacy requirement. The resource adequacy requirement should provide appropriate signals for investment in infrastructure and demand response technologies.

Commission Actions on MD02 Proposal

After carefully considering the proposal and the public comments, on July 17, 2002, the Commission issued an order on the initial elements of the MD02 proposal. In that order, the Commission approved Phase 1A (the market power mitigation procedures) to replace the crisis-oriented approaches that were due to end in October 2002, and provided guidance on the process and timetable for going forward with the other redesign

work for the California wholesale market.

Also in the July 17, 2002 Order, the Commission expressed concern that MD02 does not establish an available capacity requirement until 2004. Such a requirement would assure long-term adequate resources and is vital because most resources take years to develop and spot market prices alone will not signal the need to begin development of new resources in time to avert a shortage or pay suppliers for the capacity value they provide. In addition, the Commission noted that, without a requirement for long-term generation adequacy, the proposed mitigation program would not encourage sufficient investment. The Commission will continue to work with the CAISO and others to assure that this gap in the market design is filled appropriately.

Finally, in the July 17, 2002 Order, the Commission directed its staff to communicate with the CAISO and all market participants to develop MD02 through technical conferences, and pre-filing conferences. In addition, three full-time Commission Staff members are now working at the CAISO's offices in Folsom, California. The Commission Staff has held technical conferences (three in California and one in Washington, D.C.) with the CAISO Staff and market participants to discuss the MD02 effort.

At a technical conference held in August 2002, the CAISO stated that it could not implement the Phase 2 elements by the Commission-directed deadline of January 1, 2003.

In addition, stakeholders and the CAISO discussed various options for the MD02 implementation timeline.

In an order issued on October 11, 2002, the Commission found reasonable a CAISO alternative proposal to implement a "Phase 2 Lite," and directed its implementation by January 31, 2003. On this basis, the Commission also permitted the postponement of the remaining Phase 2 elements until the Fall of 2003. On rehearing, the CAISO contended that it could not implement "Phase 2 Lite" by January 31, 2003. Accordingly, in response to these concerns, the Commission removed the requirement that "Phase 2 Lite" be implemented by January 31, 2003.

In a status report filed on March 3, 2003, the CAISO reported that implementation of Phase 1B must be delayed until October 1, 2003, because of a software implementation delay. The CAISO stated that it will file its updated MD02 proposal in April 2003. While a delay in implementation may be necessary to ensure revised market protocols operate correctly, the lag prevents customers from receiving the benefits of improved market operations.

Summary of California Market Reform

Over the past three years, the Commission has been addressing issues related to the availability and price of electricity in California and the Western states. As the Commission observed in its July 17, 2002 Order, in which it approved the initial elements of the MD02 proposal, the underlying issues in the California electricity market remain

the same. Namely, within an interconnected, interdependent electric grid and market, California depends more than any other state upon its neighbors for a steady supply of electricity and gas to feed its growing energy needs. Unless California builds new generation and transmission; increases the physical and contractual security of its natural gas supply; helps its customers see and respond when electric prices increase; and continues and increases its conservation efforts, no set of market rules and market power mitigation measures can make its markets fully competitive, or protect California's customers from the inevitable problems that will result.

The Commission can and must encourage sound market rules, enforce appropriate market oversight, and facilitate new infrastructure construction, but California must do its part as well. New infrastructure development remains a significant part of the solution to sustained improvement of the California energy markets.

VII. Gas Pipeline Certification and Hydroelectric Licensing

Expedited Processing of Applications for Pipeline Projects

Expedited processing of applications for pipeline certificates has added new natural gas capacity to the region. Since 2001, the Commission has nationally certificated over 5,000 miles of new interstate pipelines with a capacity of about 16.4 billion cubic feet of natural gas per day. Since the majority of California and the Pacific Northwest's new electric generation capacity is powered by natural gas, new pipeline capacity will help ensure a reliable electric supply. New pipelines or pipeline projects to

increase the capacity of existing pipelines that have been certificated since 2001 and serve California or the Pacific Northwest include:

- Approval of pipeline looping and compression on the Kern River Gas Transmission Company's pipeline, which has more than doubled its capacity;
- Approval of the conversion of an oil pipeline to natural gas service for El Paso Natural Gas Company;
- Approval of additional compression on Transwestern Pipeline Company's pipeline to increase capacity;
- Approval of a point of import at the Mexico-U.S. border for Otay Mesa Generating Company, LLC for the import of natural gas;
- Approval of a new pipeline, North Baja Pipeline LLC, which will export gas to Mexico for the generation of electricity that will be imported back into the U.S.;
- Approval of projects to expand the capacity of Northwest Pipeline Corporation in the Pacific Northwest; and
- Approval of the Georgia Straits Crossing Pipeline, LP, which will import gas from Canada, transport the gas through the State of Washington and re-export the gas to Canada to be used for electric generation.

Hydroelectric Supplies

In recognition of the importance of hydroelectric generation to the California and

Pacific Northwest region, the Commission maintains a constant surveillance of hydro conditions. Should drought conditions similar to those experienced in 2001 threaten hydropower generation, proactive measures would be taken to maximize available hydropower generation, while ensuring through monitoring and surveillance, the region has non-discriminatory access to generation outside the region through open transmission access.

For example, in June 2001, the Commission approved a plan to permit a temporary increase in hydroelectric generation at the Priest Rapids Hydroelectric Project in the State of Washington to meet the immediate power needs. The Commission suspended part of an interim requirement that allows the licensee to spill water for 16 hours per day during summer migration of fish. This allowed an exchange of spill and power with the Bonneville Power Administration, thereby assuring flexibility and reliability to the regional grid an protecting fish species listed under the Endangered Species Act.

VIII. H.R. 964 - The Electric Refund Fairness Act of 2003

H.R. 964 proposes to modify FPA section 206(b) to set the refund effective date for a proceeding instituted on complaint as the date of the filing of such complaint. In a proceeding instituted by the Commission on its own motion, H.R. 964 would change the refund effective date to be the date of publication by the Commission of notice of its intention to initiate such proceeding. H.R. 964 also would replace language in FPA section 206(b) that limits the Commission in ordering a public utility to make refunds

"through a date fifteen months after" the refund effective date, by allowing the Commission to order refunds "through the conclusion of the proceeding."

Further, H.R. 964 would amend the criminal penalty provisions in FPA section 316(a) to increase the fine from $5,000 to $1,000,000 and by increasing the prison sentence from two years to five years. H.R. 964 would also modify FPA section 316(b) by increasing the criminal penalty for violating the Commission's rules or orders from $500 per day to $25,000 per day. With respect to civil penalties, H.R. 964 would expand penalty authority under FPA section 316A to cover violations of any provision under FPA Part II.

I have long supported legislation providing the Commission with greater penalty authority and an earlier refund effective date under both the FPA and NGA in order to deter anti-competitive behavior, market manipulation, and other violations of the statutes. I believe that the provisions contemplated in H.R. 964 are consistent with this view, and would support the addition of refund provisions to the NGA as well.

IX. Conclusion

Thank you again for the opportunity to offer my views on recent Commission actions affecting California's electricity market and H.R. 964.

Mr. OSE. Thank you, Chairman Wood.

I am asking unanimous consent to enter into the record the statement of the ranking member of the full Committee, Mr. Waxman. Hearing no objection, that will be done.

[The prepared statement of Hon. Henry A. Waxman follows:]

Opening Statement of
Rep. Henry A. Waxman
Energy Policy Subcommittee
Hearing on California Energy Markets

April 8, 2003

It's been almost two years since California's energy crisis finally came to a close. From the summer of 2000 to the summer of 2001, natural gas and electricity prices skyrocketed throughout the West, but particularly in California. The spot market price of electricity went from $30 per megawatt hour (MWh) in 1999 to $300 in 2001, and even went as high as $1,900 per MWh. After spending $7 billion on power in 1999, the state spent $27 billion in 2000 and almost the same again in 2001. The high prices led to rolling blackouts in parts of the state, the bankruptcy filing of one of the state's largest utilities, and huge bills for California's consumers and taxpayers.

Throughout the crisis, California officials called on the Administration to act. And time and time again, the Administration insisted there was nothing it could do. The problem was not market manipulation, they said – the state just didn't have enough power.

Now, almost two years later, we know that they were wrong. The problem was market manipulation. Even the Federal Energy Regulatory Commission now recognizes the truth. A FERC staff report issued two weeks ago concluded that there was "significant market manipulation" throughout the crisis. The report found – as so many others have found – that Enron and other power companies were engaging in phony trades and shady schemes to artificially inflate prices. They were also economically withholding power, submitting bids far above their costs.

But despite these findings from its own staff, FERC still isn't willing to punish the wrongdoers and return to the state all of the money it was overcharged. FERC is required by law to ensure that wholesale rates for power are "just and reasonable." Clearly, prices that result from market manipulation cannot be "just and reasonable."

FERC did say it would improve the methodology it has used to calculate California's refunds. But FERC refused to provide any refunds

for power purchased by California's Department of Water, which spent around $10 billion for electricity in 2001 to keep the lights on in California. FERC also refused to order refunds for the period before October 2, 2000, despite evidence of market manipulation prior to that date. And FERC will still allow generators to tack on 10% to their prices for "creditworthiness" concerns.

The result? Instead of the $8.9 billion it's entitled to, the state stands to get at most $3.3 billion, and possibly quite a bit less.

And FERC still hasn't taken any action on the state's complaint about the long-term contracts it signed in 2001. Thanks to pervasive manipulation of the spot market, and FERC's refusal to enforce the law, the power companies had the state over a barrel – and they knew it. California was desperate to sign long-term contracts for power, and it had no choice but to pay very high prices for that power in order to avoid paying even higher prices on the spot market.

Yet even now, FERC has indicated it won't abrogate or amend those contracts. So some of the same companies that hijacked California will get to profit from their actions for years to come, while the state's taxpayers will be saddled with high energy bills.

I hope that Chairman Wood will be able to explain to me why that's the right thing to do, because it certainly doesn't seem like a fair or legal – solution.

I regret that the state was not asked to testify about FERC's actions or about the California ISO's market design proposal, called MD02. Apparently, the intent was to restrict the MD02 witnesses to "stakeholders." I'm not sure why the state is not considered to have a stake in the redesign of its wholesale energy market. If we learned anything from the past few years, it is just how big a role the state does have in its wholesale electricity market.

In order to ensure that all viewpoints are represented, I would like to introduce into the record written comments by California's Public Utilities Commission about FERC's decisions and MD02. Mr. Chairman, I ask unanimous consent that these be made a part of the record.

Thank you, Mr. Chairman.

Mr. OSE. We are going to go to questions now. As usual, Chairman Wood, you are exactly punctual in your 5 minutes, for which we are appreciative.

I want to go through a particular concept here, and that is that FERC, has investigated the issue of pricing of natural gas and the five indices that were used to calculate it. And, on the basis of that investigation, has ordered refunds in two cases and asked for additional information I think in eight additional, as to the activities of eight additional companies.

The question I have is, if we are able to determine manipulation post October 2, 2000 in the drivers of pricing for natural gas, would that manipulation spread to all participants rather than just be constrained in the two, and would that necessitate a far grander view of whether or not refunds are entitled?

Mr. WOOD. Pre October 2nd or post?

Mr. OSE. Post October.

Mr. WOOD. Post October 2nd——

Mr. OSE. We'll get to the pre-October question.

Mr. WOOD. I want to make sure, because there are two different approaches we take.

From October 2nd forward, which is 60 days after the utility from San Diego filed a complaint saying that they wanted FERC to take action in the California ISO and PX markets to do price caps or some other approach to address the concerns that were raised. From October 2nd forward the Commission has really looked at, with the refund case, and that's what we kind of call generically the refund case, the $1.8 billion plus extra that will fall from last week's action. We looked at all providers and said, we are not going to allocate fault or whatever, but we are just going to reset the price at what it would have been had a competitive market worked as it was designed to work in California, what would that price be, and anything above that has basically got to be refunded.

So whoever charged that, we are not looking at intent or asking them what they were doing that day. It's just kind of a de facto calculation, here's what the numbers are. So we don't, for that reason, we have not looked at individual players as to refunds, because in fact everybody that is over the threshold has given it back.

Now, the items you referred to, there's a couple of baskets of things that fell out of last week's order. One of them was, there were I believe four companies that were electric and eight on the natural gas side that we went ahead last week and moved forward with proceedings to consider revoking their market-based rates based on some activities that are outlined in the report.

There are different kinds of baskets. We are doing further work on three other large baskets of items. One is what we call the Enron gaming strategies, people that participated in those, some 30 some odd companies, 16 that had business relationships with Enron, that's a separate basket of orders, and then 9 companies that may have engaged in economic withholding. This is pre October 2nd.

If any of those things spilled over into post October 2, 2000, then those would be actually available for additional refunds if we haven't already received them. But our remedial authority under

the law, as it currently is, is focused on a time period 60 days after a complaint is filed. So that's where the October date comes from.

And actually, because we do not have penalty authority yet, we can seek disgorgement of profits from certain transactions that violate the law or violate the tariff. So we are kind of in the middle of the stream with a number of these proceedings. But the ones you referred to are just part of the total.

Mr. OSE. The question I am trying to get at is that you've made a determination as it relates to two cases that there was market manipulation. And, I can't remember the companies. I know we can get that in the record if you like.

It would seem to me that if there is market manipulation practiced by these two companies, it has unavoidably spilled over into additional companies, whether innocently or otherwise, having their prices affected. I don't see how logically that can be avoided.

Mr. WOOD. Correct.

Mr. OSE. If that's the case, the question of how much to refund is far greater. Now, in the report that FERC did, there is a reference to rules, or the protocols or the tariffs, I don't remember the exact word, but the rules that govern behavior in markets. There are provisions, in some cases vague, in some cases not, preventing gaming strategies of the like that you have found.

If that is what you have found, pre October 2nd, does that give FERC the ability to go and seek refunds for that period of time prior to October 2nd?

Mr. WOOD. Yes, with a caveat. The hook that we've got to go back on, and the staff identified some tariff language that they think is the hook, we've got to say that you actually, you, company, were notified that this behavior was prohibited, or violated a rule. Then, we prove that they've done that. They don't have to excuse that, well, you know, I did it because the lights were going to go off otherwise, or what's a good mitigating excuse that certainly we would provide that opportunity to make that.

And then, if those two things are met, if the law was clear and you violated it, then you get refunds for that. We are in the process now, because the parties did have the opportunity to file on March 20th, which was kind of close to the date of this meeting, their rebuttal to claims that were made by a number of the California parties and State agencies that a number of these violations had happened. We indicated at our March 26th meeting we want to look at the he said and the she said. So the overlap between the staff report and the parties' investigations that came to a climax in March, we are looking at that this month and anticipate for those issues that go backward to issue orders on those by the April 30th meeting that our Commission has scheduled.

Mr. OSE. Now, you referenced in, if the gentleman will just yield a couple more minutes, you referenced in your testimony the ability to assess penalty and the lack of FERC authority to do that to date. In the last Congress, I put in a bill to provide FERC with authority to assess penalties from the date of filing, and I am advised, having put that same bill in again this year, that it's been rolled into the Energy Bill that should be on the floor later this week.

Does FERC support being given the additional authority envisioned in that legislation?

Mr. WOOD. Absolutely. Yes. And we appreciate it. In addition to moving the date back to the date a complaint was filed, you also allowed the Commission, in your law from last year and the one that was put back in the hopper this year, to not only get disgorgement of profits, but actually assess penalties, in some cases up to, let me make sure I get it right, $25,000 per event. It was $500.

Mr. OSE. $500?

Mr. WOOD. Per event.

Mr. OSE. Right.

Mr. WOOD. And, it is over a broad, over the entire Federal Power Act electricity title that we live under. So those three things together, the refund date, the broadening to include the entire electricity title, and the elevation of the penalty amount does give the Commission a much stronger tool chest to use in overseeing markets.

Mr. OSE. I appreciate the chairman's comments on that. My last question would be, if you found companies that have engaged in this behavior in violation of the terms of their certificate or violation of what you call tariffs, what I call rules, what the proposal has been is to deny them the ability to sell power or gas at market-based rates. It seems to me that such companies frankly ought to be put out of business, period. They ought to get the death penalty, if you will, as a clear and unequivocal message about this kind of behavior not being tolerated.

Could you share with us why, if you would, you're only going halfway? My words, not yours.

Mr. WOOD. Well, we've got, I mean, the two tools we've got are taking away the privilege to do business at market-based rates. I think, I haven't actually given a lot of thought to can you just take them out of business altogether and revoke their license to even have cost-based rates. Can I get back to you on that one?

Mr. OSE. Yes.

Mr. WOOD. We honestly have not looked at that. I think the perception in the outside world has been that the loss of market-based rates in a world that's dominated by markets is a significant penalty, and is one that we certainly have. Again, it's one of the two things that we have, get the profits back and yank your market-based rates. To have something on the intermediate scale, which the penalties would provide, is certainly something we welcome.

Not all behavior is worthy of putting people out of business. Certainly errant employees, bad management, you know, if there is something rotten at the core, certainly that's a different issue. I think there are gradations, just as a judge in a criminal case gets to look at. There are gradations of punishment that a jurist ought to have. And, I'll have to think about that.

Mr. OSE. Let me show you a flip side of that. The flip side of that is people in my district who process food, paying two or three or four times what they had budgeted or expected for electricity and having to shut down processing lines and lay people off. Or people in the business that use hot water basically can't buy the natural gas to heat the water that they need in their business. And, in effect, they are being shoved out of the position of being profitable into a position where they cannot survive. And, if someone is en-

gaging in inappropriate behavior that creates that, it seems to me that maybe they ought to share the same fate. Just a different perspective.

The gentleman from Oklahoma.

Mr. SULLIVAN. Thank you, Mr. Chairman.

Chairman Wood, I'd like to talk about a FERC staff report that has not gotten much attention. In 2002, the California Public Utility Commission alleged that generators had contributed to the blackouts experienced in California by deliberately keeping plants shut down rather than running them. If true, this would be extremely disturbing.

Yet, as I understand it, your staff's investigation found, "No evidence that any of the generators withheld any material amount of available power during the hours of the service interruptions." Is this correct?

Mr. WOOD. Yes, sir, it's correct. The staff did look at the days identified in the California PUC's report from last year. They looked at exactly the days of firm service interruptions, i.e., when there were blackouts in California due to inadequate supply. And, I will admit, it was difficult to kind of go through the, for our staff spent several months going through the data that the ISO had to actually look at what generators were available, what they had scheduled, what they had not scheduled, what was committed elsewise to some other customer. And, concluded that for 87 percent of the power, the megawatt hours, that in fact the firm service interruptions happened when the power was actually not available. It was legitimately not available through the ISO's records.

Now, admittedly, the ISO does not keep records specifically for this point. So to give the CPUC, I guess the fair side of the analysis is, the records weren't just sitting there ready to be written up. It took a lot of digestion and analysis and that was really what our staff did at our direction to really get to the bottom of this. Because whatever the answers are, we've got to deal with them. If nothing happened and people should be exonerated, then that ought to be done. And, that's in fact what we did.

If there is something going on, and again, we are looking at other hours today, we are looking at other hours than just these ones in this report to make sure in fact that this didn't happen in some other period. But in looking at the blackout periods, which were the crucial times when Mr. Winter and his colleagues at the ISO were scrambling around the whole west to keep the lights on, we did look at the claims here and chased them all the way down.

Thirteen percent of the hours we are unable from the records to account for. But in total, they did not add up to the amount that would have prevented a blackout. So while we don't have a complete answer on the 13 percent, I think the takeaway is that the, while those megawatts may in fact have been withheld, they were such significantly small amounts that they would not have enabled the ISO to keep the lights on.

So that's what our conclusions were on this report. And, as I mentioned, we are continuing to look throughout all the records. Some claims have come in as of last week about physical withholding, which is a really bad practice, if engaged in for the purpose

of elevating market prices, and we will continue to chase those all the way down as we did these.

Mr. SULLIVAN. Not only was there no evidence of withholding, the report goes on to conclude that the evidence actually refutes the CPUC's allegation that power was withheld. The report says, "Approximately 87 percent of the power that the CPUC concluded was available power not generated was in fact available." Isn't this right?

Mr. WOOD. It was actually not available. Yes, sir.

Mr. OSE. Could you clarify that for me, please? Run through that again. I just want to make sure we get it.

Mr. SULLIVAN. The full question again?

Mr. OSE. Yes.

Mr. SULLIVAN. Not only was there no evidence of withholding, the report goes on to conclude that the evidence actually refutes the CPUC's allegation that power was withheld. The report says, "Approximately 87 percent of the power that the CPUC concluded was available power, not generated, was not in fact available." Isn't this right?

Mr. WOOD. That's correct.

Mr. OSE. Thank you. Keep going.

Mr. SULLIVAN. While I am concerned because I think this report directly calls into question the credibility of the allegations made by the California parties, according to your staff report, the CPUC was wrong at least 87 percent of the hours it questioned. Eighty-seven percent is not a small error. In my view, that report was more of a political document than an objective analysis.

Now I read of a new or recycled allegations being made by California where companies have told me the allegations have no merit. Is the FERC staff going to examine the reliability and merit of these allegations and eliminate the incorrect ones before issuing show cause orders to the companies? Giving that show cause orders tend to assume a company is guilty until proven otherwise, shouldn't FERC determine how accurate these latest allegations are?

Mr. WOOD. We are, and that is the reason, Mr. Sullivan and Chairman Ose, that we did not issue the show cause orders in the other 30 or so companies last week. In fact, the parties I mentioned a moment ago have the opportunity to respond to the claims by California parties by March 20th. And, it's about 3 feet high worth of responses. So needless to say, we couldn't digest those and give both sides proper weight in 6 days. So we are in the process of doing that now. And, in fact, may indeed winnow down that list to just focus on not only the specific companies but the specific companies with specific claims that appear to have violated tariffs or rules at the time, rather than just broad brush complaints.

Mr. SULLIVAN. Thank you.

Mr. OSE. Chairman Wood, I want to make sure I've got this straight in my head. Under the rules that FERC operates under, people who are selling in the interstate market come to you for certificates that dictate the manner in which they can market their power. Is that accurate?

Mr. WOOD. Correct. Prior to 1992, they just came to us to set their rate. We did cost-based rates for everybody.

Mr. OSE. Now, those licenses, if you will, are called market-based certificates?

Mr. WOOD. Right. And, since 1992, people have come in and asked for and in most cases been granted the authority to sell power at market-based rates, i.e., what the market will bear.

Mr. OSE. OK. Now, in November 2001, let me back up here a bit. The Federal Power Act says that FERC cannot go prior to October 2, 2000 to order refunds unless sellers violated their market-based certificates.

Mr. WOOD. Or the CAISO tariff or FERC, Federal Power Act or FERC rules.

Mr. OSE. The question I have has to do with getting the rules that the certificates are issued under, sufficiently strengthened so that there is no question, there is no vagueness, there is no ability to equivocate, everybody knows what the rules are. Now, FERC recognized this same problem in November 2001 and has been attempting since then to reform both the natural gas and electric power tariffs. And yet, the Commission hasn't been able to come to closure on that to date.

Mr. WOOD. That is correct.

Mr. OSE. The question when I go home is, you know, when are you going to fix this, my constituents say to me. My question to you is, when are you going to get closure?

Mr. WOOD. On the market-based certificates, we actually a year ago this month, we were at that point a four-member Commission, came to two-two vote on how to refine the market-based rate tariff conditions. And, our two-two condition honestly existed until the end of last year.

Knowing that Mr. Gelinas, who is in charge of putting this report together, was going to recommend changes to a number of aspects of market-based rates on both power and gas, we beforehand had not looked at the gas certificates because I think we had focused probably unduly on the electric only, but at that point, we now, it's 1 of the 31 items that we've got to punch through in the next series of weeks.

So you are correct, sir, to point out that we have not tightened up this, I don't want to call it loophole, but tightened up this certificate. But we have not completed that work yet.

Mr. OSE. In the summary that you, we are going to use the summary because I can hold it up here, it's not 400 pages, in the summary you have a number of recommendations that are enunciated relative to the changes that need to be made. For instance, in the reporting process, look at page ES6, chapter 3, traders attempted to manipulate price indices through false reporting. Now, there's a number of recommendations here under the bullet points that I am willing to go through one by one or in aggregate send to you in writing. But I am trying to get at what kind of rules changes you are presently considering to prevent this market manipulation from occurring again.

Mr. WOOD. I could go through these, in fact, because we have just recently discussed those among my colleagues. They are all summarized on ES14.

Mr. OSE. All right.

Mr. WOOD. The first four under ES14 are basically as we just discussed, conditioning certificates of electric and gas companies. It's our intention to get that done. We've got the open proceeding that you referred to that we had locked two-two on. That's the vehicle for doing that on the electric side, and we've got to initiate a new proceeding, as mentioned there, actually amending our regulations, and they're referenced there in the first bullet, to do that on the natural gas side.

But that would be, for example, that is the one to provide explicit guidelines and prohibitions for trading natural gas. The manipulation of the indices and the behavior that led to inaccurate price reporting, which shows up elsewhere in the next series of bullets, actually the fifth, sixth, seventh and eighth bullet relate to the specific gas price index issue. The Commission is having a workshop on that on the 24th, I guess the week after next, on what to do about these natural gas price indices that a lot of people in the marketplace rely upon, but which have been called into question not only by this Commission staff report, but by market participants probably over the last 6 months.

Mr. OSE. I especially want to go to the eighth one there. Encourage standard product definitions for published natural gas and electricity price indices and standard methodologies for calculating the price indices. This would seem to me to kind of be at the core of variability in how you calculate costs versus what's going to be charged. Of the five indices that were used to calculate natural gas price, if you don't have a standard product definition for what is or isn't a market-based product, how do you find that someone's not giving you square data?

Mr. WOOD. I think you've kind of hit the nail on the head. It's for that reason that we really, as of last week, just said, we cannot rely for the purposes of calculating the California customers' refund, we cannot rely on a weighted basket of these price indices for gas. They might have been directionally correct, and I'll say certainly, the indices have the potential to be right on target. But it's not a number that we on the regulatory side of the fence could really hang our hat on and say, this is what we know the actual market price of gas was on that day.

So we went back to a much more regulatory approach to figuring out what should the input for gas price be and then provided opportunities for suppliers to show us their receipts basically, and get their money for what they actually spent. But you're right, the lack of standardization in the index reporting definitions and in the collection and computation of the data do leave some potential for variation that it's hard to get real comfortable with, from our point of view.

Mr. OSE. In terms of defining a standard product or a standard methodology, has it gone beyond merely identifying the problem in the 400 page report, or there is actual effort to come to conclusion on that?

Mr. WOOD. As I mentioned, we teed up an all day workshop with different people in the industry across the board, including the current publishers of price indices, which are all trade press organizations, a committee of chief risk officers, which are the CROs from all the energy companies and their customers, the current ex-

changes, NIMEX, ICE, Intercontinental Exchange and I believe one other are also on the list, and some customers and users that are also involved.

So it's my expectation based on the questions we ask them to respond to which are these, the ones here and broader. The definition of the product I don't think is going to be that big of an issue. I think the gas market today has pretty much a level maturity as to what the product is. It's what you do with the price as reported for purchases of those products or sales of those products, how are they averaged, how do you throw out the high numbers and the low numbers, what statistical sampling technique is used. I think it's those types of things that parties may want to explore, and will be exploring, I expect, on the 24th.

Mr. OSE. Now, similarly, there's clear indication that there were gaming strategies being employed at some point in this marketplace. Similar to a definition of a standard product or standard methodology for fixing price or calculating price. I am not aware of any clear or definite tariffs, rules, that say this gaming strategy is illegal, this one's illegal, this one's approved, that one's illegal. What progress is FERC making on that?

Mr. WOOD. Well, we published last summer our standard market design rulemaking on the electric side. Just to say up front, we've made no progress at all on any of these relating to the gas side, other than indicating we are going to take action in the first two bullets proceedings on the gas gains and the gas reporting. But on the electric side, primarily based on our experience in the California market, we did put forth, well, not 10 commandments, I think there were 7.

But in the proposed rule that is not being commented on and that the Commission is actually shifting its focus to, to really finalize that rule. But there are a number, I mean, certainly looking at wash trades, looking at false reporting, misreporting load for the purposes of gaming the congestion management system. I think there were four more, I'd have to look those up and report those back. But we have kind of laid those out for the electric side. I think the real lesson from this report is, we need to attend to the gas side as well.

Mr. OSE. At the end of the day, I don't know whether history will show this got dropped in your lap or otherwise. I mean, that you came into something midway through and it just blew up, just by chronological coincidence or otherwise. But I have to say, I just find it amazing, given the volume of natural gas and electricity that transacts on a day-to-day basis or in the forward markets and the like, that we don't have any clear definition of what a market product is, a methodology for factoring it into these prices, what is or isn't a legal trading strategy and the like.

We have to get to the bottom of this. We have to have defined rules so that we can stop this gamesmanship. Because I can tell you, for every 10 good traders out there, people who are trying to do the responsible thing and abide by the tariffs and the rules for FERC and CAISO and everybody else, there's one out there who's going to try and game it. I just know that. And, until we get to a defined set of rules, we are going to be chasing our tail. And, it's

very frustrating up here, especially as someone who has to pay for all this stuff, living in California.

Mr. WOOD. Again, I could not agree more. It wasn't certainly with my eyes closed that I knew this was going to be a big part of the job, was cleaning up the mess. But I do think it's very important for these two critical infrastructure industries as we go forward to have very well defined rules of the road. I think it's, I am sure everybody's sick of me talking about it, but it's the only way to come and get this thing back on track.

I should add, on the gas side, because it has worked, I think almost spectacularly well over the last 16 years that it's been more market based, there's been, the conservative estimate is $200 billion stayed in customers' pockets that wouldn't otherwise have been there. The high end is $600 billion over a 16 year period. It has worked very well in many instances, in most instances. In fact, in probably all instances except when you had the major use for incremental gas in California for an electric market that was on the edge.

And, I think any commodity market is going to be pushed against a tremendous amount of stress when you have kind of a fundamental market structure design flaw, which relying on the spot market was, in the California power market. And, when you also have really severe stress on the supply side, with the absence of significant amounts of hydro from the grid that year, it really shifted tremendous reliance to these old, 40 year plus, natural gas plants.

And, I do think that those conditions, as we concluded in the report, the staff did, made it very fertile ground for manipulation. But recognize that when those conditions, when the balanced market rules and the sufficient infrastructure are in place, it's very difficult to profit from manipulation. Because if you get manipulation, then someone undercuts you and takes your customer away. That's how it's supposed to work, and it has worked very well.

So I share your concern. I am committed, and we will, before I am done with this job, get these market rules all the way down and put forth. But recognize that it's not a whole festering pot of garbage. It is a few bad actors that we are going to identify and remove, and let the rest of the people that are participating in this good marketplace continue to serve customers and serve them well.

Mr. OSE. The gentleman from Oklahoma.

Mr. SULLIVAN. No questions, thank you, Mr. Chairman.

Mr. OSE. The press reports you're struggling with have to do with the difference between a short-term contract and a long-term contract, relative to the pricing of the natural gas that goes into the formula for calculating the price of electricity. Your point being that there may be an influence that the spot market price for natural gas has on the longer term markets, but there is some point at which that influence ceases to be material.

And, the question I have is, at what point in the future, in your opinion, are forward prices for natural gas divorced from spot market price influence?

Mr. WOOD. One of the things that we have seen in the gas market actually, and I think the staff has a name for it, it's backwardation, is today where the spot prices are right around,

say, a month ago, they were in the $6 range, they've fallen closer to $5 and hopefully will stay in that range or lower. But the forward price, I think the expectation that the market has been having is that in 2 years from now, even I think the expectation has become, we will pick back up and we will kind of get back on track and demand will be up. But in 2 years from now, I think the forward curves are looking like they're $1.50, $1.75 lower than they are today. I think we saw the same thing in the power markets in California, that the supply crunch of today will not be perpetuated years and months on end in the future.

I think that happens. I think in commodity markets you can have short-term increases but recognize that over time they will settle back down to a lower level. We've seen that, and in fact, the last time, last week I looked at the forward curves on gas, it was still, it wasn't as high as $6, it was closer to $5. But there was still a forward curve that was lower in the future months than it is today. I hope that's correct.

Mr. OSE. You have the difficulty of calculating just and reasonable prices on short-term and long-term contracts. So how do you factor in the price curve that you've just described on a long-term contract? If you're going to order a refund on a long-term contract, how do you know whether the price curve on natural gas or electricity is appropriate or not?

Mr. WOOD. One of the things that we asked our staff to do in this report, the fat one, was to look at the correlation between spot market and, which is defined as the 24 hour or less market, and the longer term markets. And, in chapter 5 of that report, they in fact looked at all the contract data and had a statistical consultant from the outside, let me see who it was. I'll have to look up his name later. Actually he compared all the costs of all the contracts that were entered into in the California market. And, on page D–17, did actually pull together a relationship chart, demonstrating the relationship between spot market prices and contracts based on the length of various contracts. As I think your question anticipated, had a much more pronounced linkage in the 1 to 2 year timeframe than it did in the 3 to 4 or in the 5 to 8 year timeframe.

So it is one factor that we've got to take into account in looking at any sort of contract claims. And, we do have some before us, as you know.

Mr. OSE. Is it your opinion, then, that the relationship between the spot and the forward market breaks at some point? That irrespective of whether there's been manipulation at some point chronologically into the future it washes out?

Mr. WOOD. That's what I've got to think, what I think about it, because quite frankly, we are in the process now of, with the pending cases, grafting this together. But I would say that the staff analysis that I referred to in chapter 5 there does indicate a tapering off, really, after the 1 to 2 year timeframe.

Mr. OSE. I have to express some reservations about that. My rationale being is that if the spot market is manipulated so that the price is elevated from what it would otherwise be, then at some point or another beyond a 1 or a 2-year timeframe you're going to have that reflected in the price curves at the out years. And, if that's the case, if that manipulation in the spot market in fact does

go into those out years, then does that constitute rationale for refunds?

Mr. WOOD. If in fact it does, it could, Congressman. But again, I am just reporting back here, they have actually looked at the actual contracts that were entered into during this period. This isn't a hypothetical exercise. They actually looked at all the contracts. We required under subpoena all these contracts to be provided to the Commission so the statistical correlation runs could be done, and in fact came up with a much more attenuated view of the link in the 3 to 4 year category and the 5 to 8 year category.

Mr. OSE. All right.

The gentleman from Maryland.

Mr. VAN HOLLEN. I yield back my time, Mr. Chairman.

Mr. OSE. You're yielding back for the moment?

Mr. VAN HOLLEN. I am yielding back.

Mr. OSE. All right, we are just going around and around here.

Mr. VAN HOLLEN. All right.

Mr. OSE. The gentleman from Oklahoma?

Mr. SULLIVAN. I yield back, Mr. Chairman.

Mr. OSE. I tell you what, I sure like freshmen. [Laughter.]

Commissioner, the market monitoring ability that you have been able to put in place over at FERC, we've had this discussion a number of times as to what kind of tools you now have as opposed to what you didn't have. What is the status, or can you give us an update on your market monitoring programs so that we can in turn share that with the public, so that they can get some level of comfort that we've got the tools to do the job, or if we don't have the tools to do the job, what we do need to have in order to be able to do the job?

Mr. WOOD. Three things you need to have to make a market work: infrastructure, rules, which I know we are talking about on the next panel, and third is vigilant oversight. While we do have in the different regions of the country, as California does, as we do here in the Pennsylvania, Maryland, New Jersey interconnection, as my home State of Texas has and others, a market monitoring unit on the ground that looks up front at what is going on with the market, what we were missing at FERC was really a centralized, professional, experienced cadre of people who could look at the national perspective and do that well.

So thankfully Congress did give us appropriation right as I took over as chairman in September 2001, and we did start at that point a nationwide search for an office director, senior staff, and we also had some existing staff at the Commission who moved to the new office. We've got about 90 people now who not only *enforcement and remedial activities, but the kind of work like you saw that Mr. Sullivan asked about from the staff's review on the CPUC fiscal withholding report. Those folks are here behind me today.*

We also have people that look at the health of markets, these forward curves, we look at where there are interruptions in gas pipeline service, when there are escalations of gas price as we saw in the past 2 months, investigating that not days later but minutes later. And, the ability to do that is something our agency did not have and does now and acts on it very quickly. Market participants hear from us often. We monitor not only electric data and gas data

but also oil data. We regulate, kind of the untold story of FERC is we have regulated the large oil pipeline industry for their rates for quite a while. It's one of those aspects that we are really proud of.

In addition to that, we've now got employees from the FERC that are out in the marketplace. We have three employees, for example, at the ISO that——

Mr. OSE. On the floor of the ISO?

Mr. WOOD. No, we actually are not allowed to be on the floor of the ISO. But there are three employees there. We lease office space from the ISO and our folks there interact closely with the market monitoring unit as well as with market participants in the California market. They've been there since October of last year, when we put in the new market power mitigation measures that we changed to at that time.

And, we also now just recently announced that we are putting two in Carmel, IN, to monitor the midwestern markets which are in the process of being established and are kind of going through their startup and growth period. So I expect we will see more of that as the markets mature and develop around the country. We will make sure that we don't just sit here but we have folks that are our front line out there as well.

Mr. OSE. My recollection is that you also took the step of hiring one or two professional traders to come to work for FERC, the purpose of which is to get not so much the scientific side but the trader seat of the pants sense of what's happening. Is that still the case?

Mr. WOOD. It is, and actually more than one or two just came to work at FERC from the industry side. And, it's not just the trading, but all aspects of both production, on the production side, on gas, we have some good gas expertise as well as some electric expertise from different parts of the industry. It's been, certainly we would rather not have the downturn in the industry, but it has allowed us to be a more attractive employer than we otherwise would have been, and have been able to attract certainly hopefully for longer than short-term some good, diverse talent to the agency. So I am again very grateful for the funding and the FTEs from Congress, but doubly grateful that we've been able to actually attract the quality people that we've been able to get.

Mr. OSE. One of the things you have in the market monitoring area is you have a large map of the United States. And, up on that map you can visually see the, if memory serves, the path by which power gets to the markets. Now, the purpose of the map is to identify where you get roadblocks or impediments or congestion or what have you. How often do you tweak, if you will, the formula by which you identify where congestion occurs or where a problem arises?

Mr. WOOD. Well, we do rely on certainly the NERC, which is the North American Electric Reliability Council, does set forth the criteria under which interruptions would happen. Those are called transmission loading relief, which means you just basically take transactions off the grid and say, you can't send your power that way. Those happen every day. Some of them are like, I guess, bronze, silver and gold. You've kind of got a lot of bronzes, maybe a silver every day somewhere and every so often, a full curtailment

of loads. Curtailment doesn't mean blackout, it just means that commercial transactions don't happen and customers end up paying more money. So congestion basically is a money issue.

At extreme times, as we've seen in your home State, it can be a reliability issue as well.

Mr. OSE. I just want to share, that's not why we are called the Golden State. [Laughter.]

Are all of these resources we are putting for market monitoring, will they alone prevent higher prices or blackouts in the future?

Mr. WOOD. No. And, I hope I haven't promised that they would. But for example, California, let's look at that. In May 2000, the prices in the wholesale market started to rise. We got a complaint 3 months later from a utility that was paying these prices and thinking, gosh, I am going to go bankrupt if I have to sell at this retail price and pay at this wholesale price.

Sixty days later than that, so a good 150 days after the fact, customers had some remedy. I just find that unacceptable. So we want to make sure that if there are issues, that we identify them the day they are happening, so we can take action that day so if there is some violation, if it's the normal forces of the market working, then they should be allowed to work. And, people curtail their use or buy alternate products, switch from gas to fuel oil, perhaps, and do economically rational things.

But if they're the result of somebody taking advantage of the rules or creating a situation that is illegal or unlawful, then that ought to be able to be remedied, not 150 days later, but that day. And, I think, if we continue to maintain the approach that we've got, in relying on our extensions in the regions, then that can be very quick activity and not extended, as we saw in the California crisis.

Mr. OSE. Do you now have the ability to act on an immediate basis? Or are there things you need from Congress yet?

Mr. WOOD. You've got it. As you mentioned, your bill does that for us. We do not have that ability on the natural gas side. In our prior discussions, we focused on electricity. But the Commission, in my testimony to our oversight committee, did indicate a request to have such authority on the natural gas side as well, similar to what we just talked about in bill 964.

But I think what we've found, and I think it's certainly the case, is when market participants know that not only are we looking, but we have capable, qualified, bright people who are doing that looking, not politically motivated looking, but people who are interested in the long-term health of the markets looking, then those behaviors get remedied pretty fast, if they get tried at all. It's hard to know what caused the California markets to kind of settle down, but I think a substantial number of people have credited the fact that now they knew that the cop was looking, not parked at Dunkin' Donuts but actually out there looking.

And, we will continue to do that.

Mr. OSE. Dunkin' Donuts is based in his district. No, just kidding. [Laughter.]

Mr. WOOD. I just think that the ability to be nimble and quick and smart is 90 percent of what is needed to oversee the market. The other 10 is to have a tool chest that gets attention.

Mr. OSE. I do want to thank you for the work you do. I may continually nag at you to come on, come on, faster, more, sooner, frankly, because I've got 35 million people of which 600 odd thousand live in my district, and they're concerned about this. I know Mr. Sullivan and his constituents are concerned about this. I do want you to know that, we do not believe this issue is over. Excuse me, I don't believe this issue is completed. I do think we are going to have a continuing issue in California relative to supply and price.

The ability to bring to the rulemaking process some definition on methodologies for pricing and marketplace behavior is critical to what we are going to do successfully in California. We are going to talk a little bit about that in the next panel. I do appreciate FERC's willingness and interest to stay on this, because I will continue to watch and if necessary, have additional hearings. Because I know you love coming up here.

Mr. WOOD. Let's go to Sacramento again.

Mr. OSE. Yes, maybe someday. I will tell you, I am troubled, I fail to see the logic between being able to find evidence of manipulation and moving to order refunds and then finding similar evidence of manipulation and being reluctant to order refunds. You haven't made that case to me yet, that there is a break between those two. Manipulation is manipulation. And, frankly, my people suffered accordingly. To the extent that they did suffer, they are entitled to refunds over and above a just and reasonable price. We'll come back to that issue in future hearings if necessary, and you'll probably get endless letters from me accordingly.

But I do want to thank you for coming down here. I am appreciative of the fact that you've accommodated our next panel and will participate in that too. We are going to take a 3-minute break here. Commissioner Wood, thank you for joining us.

Mr. WOOD. Thank you, Mr. Chairman.

[Recess.]

Mr. OSE. All right, we are going to go ahead and reconvene with our second panel. Joining us on our second panel are the following individuals. We have Terry Winter, who's the president and chief executive officer of the California Independent System Operator; Karen Tomcala, who's the vice president of regulatory relations of Pacific Gas and Electric Co.; Gary Ackerman, who's the executive director of the Western Power Trading Forum; Jan Smutny-Jones, who's the executive director of the Independent Energy Producers; and we have George Fraser, who's the general manager of the Northern California Power Agency.

As you know, we swear in all our witnesses. Commissioner Wood is joining us also. We are going to ask him to rise and be sworn in again. If you'd rise, please.

Commissioner Wood does not need to be sworn in a second time? All right. Well, he's volunteering. [Laughter.]

[Witnesses sworn.]

Mr. OSE. Let the record show that all the witnesses answered in the affirmative.

Now, we have an order here, we are going to move from my left to my right. Commissioner Wood having given his testimony, if he wishes to add anything, will be welcome to do that. Each witness

is going to be provided 5 minutes. We've received your testimony in advance. I have in fact read it. And I have numerous questions. We'll get to those as we move through.

So Mr. Winter, you're first for 5 minutes.

STATEMENTS OF TERRY WINTER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CALIFORNIA INDEPENDENT SYSTEM OPERATOR; KAREN TOMCALA, VICE PRESIDENT, REGULATORY RELATIONS, PACIFIC GAS AND ELECTRIC CO.; GARY ACKERMAN, EXECUTIVE DIRECTOR, WESTERN POWER TRADING FORUM; JAN SMUTNY-JONES, EXECUTIVE DIRECTOR, CALIFORNIA INDEPENDENT ENERGY PRODUCERS; AND GEORGE FRASER, GENERAL MANAGER, NORTHERN CALIFORNIA POWER AGENCY

Mr. WINTER. Thank you. I appreciate the opportunity to come and talk to the group. As normal, I have to say that as the CEO and president of the ISO, I am representing myself here today and would not want to represent that my comments deal with the board, any State agency or the Governor's office. So with that disclaimer, you're going to get whatever you see.

With your concurrence, I would like to submit for the record an opinion from our market surveillance committee, which consists of Dr. Wolak, Dr. Bushnell, Dr. Hobbs and Dr. Barber. I had asked them to do a review on LMP. They got that to me yesterday. So if I could put that into the record.

Mr. OSE. Without objection.

[The information referred to follows:]

Comments on Locational Marginal Pricing and the California ISO's MD02 Proposals

Market Surveillance Committee of the California ISO
Frank A. Wolak, Chairman; Brad Barber, Member;
James Bushnell, Member; Benjamin F. Hobbs, Member

April 7, 2003

Summary

We have been asked to comment on the relationship between Locational Marginal Pricing (LMP) and the ISO's Market Design 2002 (MD02). Concerns have been raised about the uncertain impact of MD02, in general, and LMP in particular on California consumers. It has been argued that extensive testing is needed before implementing MD02. We agree with these concerns. However, we also feel that the ISO's most recent plan for testing and implementing its MD02 design, for the most part, satisfies the concerns that have been raised. The application of LMP to retail loads has been indefinitely postponed, and participants will therefore have ample time to observe the actual prices resulting from market operations before any decisions about application of those prices to retail loads are taken. The current schedule for implementation of MD02 is by no means hasty and already calls for extensive *testing* during parallel operations with existing systems, as opposed to simulations using predictions about prospective market conditions. One lesson from the events of May 2000 to June 2001 is that suppliers will exploit market design flaws in ways that are difficult to predict in advance. Consequently, the ISO's approach of parallel operations is currently the most reliable form of testing the potential impact of LMP on California consumers. Market participants will have ample opportunity to analyze the impact of LMP during the parallel operation of the ISO's existing market with the MD02 market design.

The Big Picture: Why Redesign the Market?

Before discussing the implications of LMP in the context of the MD02 proposals, it is worthwhile to review the motivation behind the formation of these proposals in light of the market structure that now exists in California. These proposals have at times been characterized as imposing revolutionary changes on the electricity market to a degree comparable to the changes implemented in 1998. This is simply not true. For better or worse, the impact of any ISO market rule on the electricity costs of end-users in California will be much more limited relative to the impacts of the major structural changes undertaken in 1998. A significant share of the energy consumed in California is self supplied by the utilities and a large share of the remainder will be supplied under mid-term and long-term contracts signed during the winter and spring of 2001 whose costs will be largely unaffected by ISO market outcomes.

Long-term contracts and additional generation capacity have greatly reduced the impact of system-wide market power on the ISO's energy market. One of the largest

remaining threats to the market is the local market power of some suppliers that is created by limitations in the transmission system. This is a problem that could very well get worse with the addition of new generation capacity in transmission constrained regions. The ISO needs additional tools in order to deal effectively with the problem of local market power. Such tools are an important element of the MD02 proposals. Importantly, it appears to us that the Federal Energy Regulatory Commission will not provide the ISO with the most effective local market power mitigation tools without other elements of MD02, including LMP. The ISO has made several requests, starting in 1999, for "PJM style" local market power mitigation. FERC has rejected these requests, most recently stating that it may consider providing the ISO with more effective local market power mitigation if it adopts an LMP market such as the one proposed in MD02.

While the long-term commitments now present in the system largely hedge the electricity costs of end-use customers, they do not minimize the usefulness of a short-term electricity market run by the ISO. To the contrary, given the potential rigidities introduced by a system of longer-term bilateral contracts, the efficiency and reliability of the system depend even more on having a rational, transparent market that allows firms to adjust to market conditions very different from those that existed when contracts were signed. Firms sign contracts based upon what they think average prices may be over the next 5 or 10 years. We do not want the daily operation of our electric system to be based upon the same criterion, with expensive generation operating while more efficient generation is idled simply because they had different expectations about long-term trends in electricity prices. By the same token, units should not be operated simply because the owner has a long-term physical right to a transmission interface.

Daily spot markets allow for firms to adjust their actual production and consumption decisions based upon their true current opportunities and costs. Long-term commitments help to hedge the risks of such decisions, but should not drive daily decision-making. In the electricity industry, with its enormous size and with the volatility of many of its key inputs and even demand, the ability to make short-term adjustments can reap substantial benefits. Even a 1% cost reduction is consequential in a $250 Billion industry. The MD02 proposals are motivated by these goals.

The current ISO market design has a number of well-known flaws. Setting aside even the impacts of market power and the tremendous costs that have been borne by California consumers over the last several years, the electricity system has not operated nearly as efficiently as it could. Much of this is due to a market design whose greatest champions, such as Enron, benefited from the inefficiencies embedded in this current design, the most publicized one being the "dec game," where a supplier would over-schedule at a given location knowing that the unit would subsequently be paid not to provide this energy because of local transmission constraints. Some parties continue to benefit from these inefficiencies. While the costs of the Dec game to date pale in comparison to the costs of overall market power, it remains a concern that is likely to grow more serious in the future. The fact that market redesign cannot recoup the losses of the last few years does not mean it's not worth doing.

Next Steps

There seems to be little disagreement about the need for changes to the ISO's market design and operations. At issue currently is the extent to which LMP will be a component of that market design, as well as the timing of any implementation of LMP. Concerns have been raised about the uncertain impact of MD02, in general, and LMP in particular. It has been argued that extensive testing is needed before implementing MD02. We agree with these concerns. We believe that the ISO's most recent plan for testing and implementing its MD02 design for the most part satisfies them. In reaching this conclusion, we make the following observations.

1. The application of LMP is not a revolutionary or experimental concept.

Many variants of LMP have been adopted around the world. The overall performance of those markets has varied, but it is generally accepted that such differences are due to the overall market structure and relative competitiveness of these markets. The usage of LMP has not caused significant difficulties in these regions; no market that has adopted it is considering getting rid of it, and some markets that started with a zonal model have converted to LMP. Concerns have been raised that a stakeholder process in California could lead the ISO to adopt design changes that distort a reasonably reliable and tested approach into something much less predictable. If such concerns are significant, it may be advisable to adopt an existing LMP system, such as the one that exists in PJM, with as little alteration as is practical. This may also have the additional benefit of allowing the ISO to obtain a "PJM-style" local market power mitigation mechanism.

2. The application of LMP to retail load has been indefinitely postponed.

Customers will not even have the opportunity to voluntarily enroll in a LMP based rate. The only application of LMP on the demand side would be its application to dispatchable load that is explicitly bid into the ISO market and essentially paid the nodal price to reduce consumption. While we feel that there are potentially significant cost savings that could be reaped from an eventual application of retail pricing to a level finer than the currently proposed 3 pricing zones, we are sympathetic to concerns about the unpredictable impacts of LMP on California consumers at this time. The current ISO proposal would allow for the ISO and participants to observe the resulting implied prices for a considerable time before any decisions are made about whether or how to apply them to retail loads. At the same time, the ISO and others should continue to pursue methods that would hedge the monetary impacts of LMP on given regions while still providing the right incentives for the efficient production and consumption of power.

3. Testing and Simulation are not the same thing.

Substantial criticism has been levied at the ISO's first study of the potential impact of LMP as testing a "best-case" scenario. Even the ISO acknowledges this is

true and has always planned undertaking further studies to predict the impact of MD02 rules on local prices. However, it is important to understand that such studies are just *predictions*, and predictions in electricity markets are always based on simplifying assumptions and notoriously inaccurate. It is also important to recognize that the goal of testing should be to determine the *differential* impact of LMP, as opposed to the current system, on prices, not to predict the impact of the overall market structure on prices. We have the ability to model and understand with some accuracy the impact of market power on system-wide prices. To our knowledge, there is no model that can reliably predict the incremental impact of LMP vs. another pricing system on overall prices, for the simple reason that the impacts are incremental. In other words, overall price levels are mainly driven by underlying market structure, the extent of forward contracting, and market power mitigation provisions, rather than whether LMP is used for congestion management and spot markets. We could simulate what local retail prices would result given a set of assumptions about how suppliers would bid under that system. At a minimum such an exercise would be expensive and at worst futile. It would be much more informative to calculate what local prices would result from the *actual* bids of suppliers operating under the system. The current ISO proposal would do this. At several stages of implementation, the proposal calls for running the new system in parallel with the existing system for at least several months before "plugging in" the new system to the market. To us, this constitutes the most reliable approach to testing the system. We also urge that the implementation and testing process be as transparent as possible. This would include the publication of as much detailed data as is practicable.

4. LMP-based transmission management and MD02 cannot be separated easily.

As described above, it is relatively straightforward to eliminate the impact of LMP on retail load by averaging the prices charged to load serving entities (LSEs) over large regions. It is not, however, possible to ignore the physical reality of actual transmission constraints and their impact on system operations. Simply put, transmission constraints require the ISO to call upon more expensive generation sources, since operating the cheaper sources would threaten network reliability. This means that different generators at times have to be paid different prices.

Such is the case today, as it would be under MD02. Both systems pay individual generators potentially different local prices, and charge load much more aggregated regional prices. Thus a comparison of the current system and MD02 is not about *what* is done, but *how* to do it. The MD02 proposals would improve upon today's ad-hoc and mainly real-time approach to managing local congestion, thereby reducing overall costs and hopefully reaping savings for consumers. Now that LMP is not to be applied to retail load, it is difficult for us to see a further separation of LMP from MD02 as anything but a change in semantics.

5. Concerns about MD02 remain, but are not about adopting LMP.

Several other concerns have been recently raised in conjunction with the concerns over the introduction of LMP. These include the uncertainty about the design and allocation of CRRs and the prospects for generation and transmission investment. With LMP now to be applied to generation only, any *new* CRRs will not be needed by LSEs to hedge *intra-zonal* congestion. Firms also want to know what kinds of hedging instruments will be available for *inter-zonal* congestion, but such concerns apply whether LMP is adopted or not.

Concluding Comments

LMP is a small, but important, part of a well-functioning wholesale market for electricity. Demand-responsiveness to both locational and temporal price differences is another important source of benefits from a wholesale electricity market. LMP is a necessary step towards achieving this long-term goal. In the short-run, the phased implementation of LMP (as proposed by CAISO) carries little potential costs and provides several short-term benefits. These benefits include: (1) the ability to secure effective local market power mitigation tools from FERC, (2) reduction in undesirable trading strategies (e.g., the "dec game"), (3) greater transparency, efficiency, and reliability in system operation, (4) improved demand responsiveness (given the ability of dispatchable loads to bid and respond as generation and receive the LMP), and (5) greater granularity in the costs of transmission congestion to aid the transmission planning process.

Mr. WINTER. Thank you.

I think the first question, why MD02, you've defined what it is, and for the record, that's Market Design 2002. And, one of the things that we've heard loud and clear is that the California market is broken, and I certainly agree with that. We no longer have a PX, we no longer have the ability to get supply. We certainly have seen high prices, and even though they have moderated considerably over the last year, they were still astronomical and we are concerned about those continuing.

Actually, the redesign by different names started in 2000 when we started having market things that we were concerned about. And, it's been over the last 2 years, we actually were ready in about January 2001, we received a new board. They wanted to get familiar with it. So the final MD2002 was filed with FERC in May 2002. And, this was a result of untold hours of stakeholder meetings, searches for best practices among the other ISOs, and recognizing the constraints of the California market and the situation the transmission system was in.

The end result is MD02. And, it is our proposal to solve the six major concerns that we have. One, it addresses and prevents gaming and market power abuse. Two, it's to help us reliably operate the system. Three, it allocates scarce transmission resources fairly and provides open and non-discriminatory service. Four, it provides a day ahead market and removes from real, as much from real time as possible, the decisions that we have to make. Five, it provides transparency to market participants so that they can better manage their costs and exposures. And, six, we are hoping that it will return confidence to the marketplace, so that the efficiencies gained can benefit the consumers.

Until this is in place, I feel that we are still vulnerable to all the things that have happened to the market in the past. So we feel we need to move rapidly to get this done.

You've asked me to address four areas: resource adequacy, mitigation, LMP, and seams issues. Each of those subjects you could literally write books on. But I will try to capture in one or two sentences where we stand on each of those.

Resource adequacy. The ISO feels as a very bare minimum that load serving entities should provide an amount equal to 112 percent of their peak load. This will meet operational reliability concerns and ensure a competitive market. The ISO did not file this with FERC at the request of the State, which is working to provide a procurement policy for the utilities and the needs of the State. They have moved somewhat rapidly and in terms of getting hearings started, the PUC, the CEC are all working on these. They have told us that they will have results by November 1st.

I think it is the State's prerogative to be able to say, we are going to meet this capacity with demand programs, with efficiencies, with additional generation, renewables. I feel that is a State prerogative. So we are waiting. But again, I think the ISO, from our standpoint, we have to be guaranteed that you have at least 112. The State is looking to give us more than that at the 115 to 120 percent level, which I am encouraged by.

Mitigation. FERC has in place three things that they gave us at the end of, or the fall of last year. One of those was a must offer

requirement, which ensures that generators will bid into the market. Second, a bid cap of $250. And third, an automated mitigation procedure that checks for prices versus the cost of gas.

And, while those are absolutely necessary and helpful in the market, I would ask for two additional things. One of those is a method to mitigate local market power, because we see that when we have transmission lines out, we see it in pockets where the transmission service is not adequate.

The second is, as much as I would dislike having to enforce penalties, I feel that the market, to gain confidence and also control some of the activities that we have seen, that we need penalties for things such as uninstructed deviations, when people do game the market. We've got to have a clear set of rules and say this is unacceptable and a way to stop that behavior.

LMP. LMP has been much discussed, but merely, I think if you look at what it is, LMP is just a way of allocating transmission resources. The drawback, of course, to some is that it gives you a different price at different locations. If you happen to be in one of those high priced locations, then you're very anxious to make sure that you don't get stuck with a high price. We think it's absolutely essential for the generators and the wholesale purchasers to understand what price they are paying at a particular location, and so we are recommending that we go with the LMP, and I'll stop in just a second. But we are going to average the price over PG&E, Edison and SDG&E's territories, so that the retail customer will see one common price.

Seams issues, we are working on those and I am sure you'll have a question for me on that. Thank you.

[The prepared statement of Mr. Winter follows:]

Statement of Terry Winter
President and Chief Executive Officer
California Independent System Operator

Before the
United States House of Representatives
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

April 8, 2003

Mr. Chairman; Members of the Committee:

Thank you for inviting me here today to discuss the California Independent System Operator's Market Design 2002 (MD02) initiative. I very much appreciate the opportunity to tell you about this initiative and to explain its importance in the reform of California's energy sector.

You have asked me to testify on our plans for addressing Locational Marginal Pricing, seams issues, mitigation measures and resource adequacy, and to discuss the current status of the MD02 process. I am happy to do so because I believe that it is crucial for policymakers to understand the elements of MD02 in context and have a sense of how these elements will work together to benefit California consumers and market participants. We want to make sure that policymakers in Washington have confidence that we are headed in the right direction.

First I want to explain briefly our role in California's energy infrastructure. The California Independent System Operator (ISO) is the independent, nonprofit, public benefit corporation responsible for managing the flow of electricity along the high-voltage power lines that make up most of California's transmission system. The system that we operate is one of the largest in the world, directing some 233 billion kilowatt-hours of electricity a year to California utilities based on their real-time electricity needs. Ultimately, the utilities that use our wholesale transmission service provide electricity to more than 10 million retail customers statewide.

Since the onset of California's energy crisis in the Spring of 2000, the California ISO has been engaged in planning and implementing a range of actions directed at effectively addressing the problems that are under our control as transmission system operator. I want to emphasize to you that the ISO has not been alone in pursuing workable solutions to the problems confronting California's electricity system. We are just one part of a larger effort by elected officials, state and federal agencies, municipalities, private-sector entities, and the citizens of California themselves. This overall effort is made up of a number of important components, including:

- Long-term planning to ensure supply adequacy during peak load periods;

- Increased use of long term and bilateral contracts for electricity to minimize dependence on spot markets;
- Expansion of conservation and price responsive demand programs;
- Expedited licensing and construction of new generating units;
- Authorization of transmission upgrades;
- Development of procurement rules for regulated utilities;
- Increased participation by municipal utilities in the ISO's wholesale electricity market, and;
- Implementation of important design changes to fix the ISO's wholesale spot market.

The ISO's MD02 project complements and supports all of the above efforts by reforming the way the ISO performs its core function of safely and reliably managing electricity flows on the transmission network. Although the costs of this network represent but a small fraction of total electricity costs, it is the superhighway system necessary for the reliable and efficient delivery of power to millions of consumers. Once fully implemented, MD02 will bring significant stability and certainty to the California electricity system, creating a framework for future investment in California's energy infrastructure. However, I must caution you that, at present, the system remains inefficient, vulnerable to manipulation, and unsustainable because of flaws in the original design and the accumulation of patches and partial fixes over the five years since the ISO started operation.

In particular, a crucial activity for the ISO is to schedule, on a daily basis, the planned electricity flows for the next day, and to ensure that these planned flows will fit within the physical limits of the transmission system. This activity is called "congestion management" because its purpose is to eliminate the "congestion" that occurs when too much electricity is sent over lines that cannot carry the full load. Today the ISO's existing system for day-ahead management of congestion is overly simplified and therefore does not represent a realistic picture of how power will actually flow in real time. As a result, day-ahead schedules may not fit within the capacity of the grid, and the ISO's grid operators must make last-minute operational adjustments, making it unnecessarily difficult and costly to manage the grid and maintain system reliability. In addition, this discrepancy between the simplified day-ahead procedure and the actual physical grid creates opportunities for gaming and manipulation, again increasing costs to consumers. Furthermore, since the demise of the California Power Exchange (California PX), all short term balancing of supply and demand has been pushed into the more volatile real-time market operated by the ISO, further complicating and compromising reliable operation of the power system.

Compounding these design problems is the fact that our original computer systems are nearing seven years old. These legacy systems are not capable of providing the flexibility or reliability that today's market demands. The California ISO's MD02 proposal is designed to address these problems.

What is MD02?

The ISO's proposal to substantively reform California's wholesale electricity market is focused on eliminating the problems that continue to exist in our market design, thereby stabilizing the wholesale electricity spot market, minimizing the size and role of the spot market, and eliminating unnecessary challenges to reliable operation, thus helping to foster investment in California's critical energy infrastructure. This effort is known collectively as "Market Design 2002" or MD02.

It is important to understand that MD02 is not an experiment in untried market design. Since its inception, the MD02 effort has focused on a "best practices" approach wherein the ISO has looked to market design features that have been successfully implemented and that have worked on a sustained basis in other parts of the country.

It is equally important to understand the changes that are proposed in MD02 in the larger context of California's current energy market structure. Most of California's day-to-day demand for energy is met through bilateral contracts between utilities and suppliers, or by the generating units still owned by the utilities. The majority of power is scheduled with the ISO in the day-ahead timeframe, at which time the ISO must ensure that these day-ahead schedules can actually be delivered over the grid. In this way the ISO manages the flow of energy on the transmission grid, but is not a party to the bilateral energy transactions. Typically, less than five percent of the energy needed on any given day is transacted through the ISO real-time energy market. However, virtually 100 percent of the energy needed is delivered over the ISO grid. Thus, although MD02 is not a plan to reconstruct California's entire electricity sector, it is an investment in a crucial piece of infrastructure necessary to accommodate and complement the features of the California market beyond the purview of the ISO. MD02 is but one facet of the larger regulatory and institutional framework necessary to reform California's electricity sector.

The mission of MD02 is to develop market design changes that ensure effective and sustainable performance of the ISO's core function: to provide open access to reliable and non-discriminatory transmission service. ISO market rules and grid management procedures will closely support grid operations and accomplish four major goals:

1) Improved Economy and Efficiency: The new design will be able to perform day-ahead assessment of the key factors, such as power plant performance and costs and grid bottlenecks, needed to determine how best to dispatch power plants to match real-time grid operating needs. That means that consumers can be served by the most efficient mix of supply resources to meet each hour's energy needs, and

each generating unit can be used in the most efficient and economic manner possible.

2) Improved Congestion Management: MD02 uses a realistic computer model of the grid to predict a day ahead of time how scheduled energy will actually flow in real time. This allows the ISO to manage congestion on the grid well before real time, enhancing real time reliability and preventing many of the Enron-like games that occurred during the 2000-2001 energy crisis. The method we propose, which has proven effective in other parts of the country at managing congestion, is called "Locational Marginal Pricing" (LMP).

3) Reduced Volatility: MD02 will enable the ISO to match buyers and sellers through a transparent day-ahead market that reduces reliance on the more volatile hour-ahead and real-time markets. Since the California PX ceased operating there has been no transparent market for spot energy transactions to balance supply and demand ahead of real time. MD02's "Integrated Forward Market" will serve this function.

4) Better Planning for Generation and Transmission Investments: MD02 is designed to produce hourly data on the transmission congestion impacts at any point on the grid and allow policymakers and market participants to assess more accurately the benefits of infrastructure investments at any specific location.

Locational Marginal Pricing

You have asked that I specifically comment on the Locational Marginal Pricing component of the MD02 proposal. As I have indicated, LMP is simply a method for managing congestion on the grid. Although some opponents of MD02 have alleged that it is an untried system, it is actually already being used successfully in the New York, New England and PJM ISOs for congestion management. For California, the ISO sees the LMP as the needed remedy for the well-documented flaws of the original congestion management design – exactly the opposite of the risky design change some parties have claimed LMP to be.

LMP is sometimes called "nodal" pricing because it develops a wholesale energy price for each location or "node" on the grid. There are approximately 3000 nodes on the ISO's system, each representing a place where energy is received from a power plant or delivered to customers. A computer model of the system is called a "Full Network Model" because it provides an accurate and transparent representation of the physical transmission system -- the lines that interconnect each node and connect the ISO's grid to its neighbors

LMP is designed to make day-ahead scheduling fully consistent with real-time electricity flows, and thus make real-time operations more manageable and reliable. In this regard there is no doubt that it would be a major improvement over the current system. The use of LMP also addresses current problems in accommodating new generation additions which are competing for use of the grid. The Full Network Model solves this

problem and provides an efficient, transparent mechanism for allocating transmission to all users of the system.

While LMP will make cost differences at different nodes apparent, there will be no localized price impacts on retail customers under the nodal system. The ISO's proposal specifically calls for averaging spot market prices and spreading the wholesale energy costs over the existing investor-owned utilities' service areas, so that all customers -- including municipal utilities and direct access customers -- would be charged aggregated prices. In other words, our proposal assures that consumers in areas where transmission is inadequate would not face higher prices because the wholesale costs for power would be evenly distributed. Moreover, to further mitigate concerns regarding price fluctuations, the ISO proposes to allocate to each load-serving entity in the state the financial rights – called Congestion Revenue Rights ("CRRs") – necessary to protect them from fluctuating transmission congestion costs. While this concept sounds complicated, it has been successfully implemented and applied for years in the eastern markets. The ISO has established a prudent schedule to phase in the new market design along with a plan to simultaneously and intensively test LMP under actual system conditions. This means all stakeholders will be able to see LMP prices well in advance of full implementation.

The ISO Board of Governors has received formal letters from several Members of Congress and some members of the California Senate and Assembly urging that we slow down our LMP implementation efforts. The ISO Board directed staff to continue with ongoing LMP studies in order to fully evaluate the effect of LMP on energy prices in California. The Board also directed that a cost-benefit analysis of LMP be undertaken in order to clarify the function and benefits of MD02. We are pursuing three specific studies to ascertain the potential impact of the LMP proposal:

<u>LMP Price Dispersion:</u> In summer, 2002, the ISO initiated a series of analyses to determine the potential dispersion of prices in the ISO Control Area from implementation of LMP. This study is intended to approximate the relative price difference between locations in the ISO control area. It is not intended to predict actual energy prices for each location under LMP. The first two analyses, based on actual cost-based information, were made publicly available on September 30, 2002 and February 4, 2003 and are posted on the ISO's website. We are currently performing additional studies using actual bid data. Although LMP price dispersion is important to study and understand, I re-emphasize that the MD02 design fully insulates consumers from local price impacts by averaging wholesale electric prices over entire utility transmission service territories.

<u>LMP Cost-Benefit Analysis</u>. Pursuant to a request from certain members of the California Legislature, the ISO has initiated an effort to perform a peer reviewed cost-benefit analysis regarding the transition to LMP. The ISO is currently in the process of selecting a consultant to conduct such an analysis. The ISO hopes to conclude this analysis within the next several months.

CRR Study. As noted above, the ISO proposes to provide Congestion Revenue Rights (CRRs) to load-serving entities as a means to hedge against the risk of fluctuating transmission costs. In an effort to provide load-serving entities with an idea of how many CRRs will be allocated to them, the ISO is in the process of conducting a study to determine how many CRRs may be made available on both a system-wide and individual load-serving entity basis.

In combination with the load aggregation pricing described above, the ISO believes that these analyses will ameliorate concerns regarding the ISO's proposed transition to LMP.

Seams

The Western Power Grid is an infrastructure that distributes power to 11 states, two provinces of Canada, and part of northern Mexico. The many individual service areas that once existed have been reduced to about 20 areas, but the West continues to be a patchwork of control areas operated under different scheduling timelines and differential tariffs and rules to access and utilize the grid. In order to continue to facilitate the historical interregional transfers that take advantage of the load and resource diversity in the western system, the ISO is committed to working with its regional partners to align, to the extent practical, the market design and operational features of each sub-region.

The three Regional Transmission Organizations that are proposed in the West – RTO West in the northwest, WestConnect in the southwest, and the California ISO -- are active participants in the Seams Steering Group -- Western Interconnection (SSG-WI). SSG-WI is an ongoing effort focusing on development and support of a seamless wholesale energy market that will benefit all consumers in the West, minimize barriers to trade and promote common business practices among the three RTOs. The goals of SSG-WI were formalized on December 5, 2002 in a Memorandum of Understanding between the three coordinating parties. SSG-WI will serve as the discussion forum for facilitating the resolution of interregional issues. Each of the three proposed RTOs and its respective governing body retains complete authority to determine whether to adopt or implement consensus recommendations of the group. SSG-WI has formed work groups to provide opportunities to discuss and resolve issues that are crucial to the development of a seamless western market. These groups will focus on:

- Developing a transmission planning and expansion process that will result in a robust Westwide interstate transmission system;
- Developing a proposal for an integrated, Westwide market monitoring function to satisfy the ever-present need for vigilant oversight of the western markets;
- Coordinating day-ahead scheduling and real time operating protocols and system development in the Western Interconnection for seamless interface and more efficient use of the grids;

- Developing proposals for price reciprocity; and
- Eliminating seams issues associated with Western RTO congestion management procedures.

Mitigation

Ever since the MD02 initiative began in the winter of 2001-2002, the ISO has stated that an express purpose of the design and all of its features was to mitigate the exercise of market power. The exercise of market power typically occurs in two forms, *physical withholding* – i.e., not making physical generating resources available to the market to serve load – and *economic withholding* – i.e., bidding high prices so as to drive up the price of power. Under either approach, the intent is to manipulate and increase the price of electricity. In order to combat such price manipulation, the ISO proposed a menu of measures to prevent both physical and economic withholding.

First, and as further discussed below, the ISO proposed a resource adequacy proposal to create a platform for adequate resources and reserves needed to operate the system reliably. This platform provided for forward contracting and resource investment by load-serving entities. In the end, the best defense against the exercise of market power in wholesale spot markets is to contract for capacity at a fixed price in the forward markets. In addition, the ISO campaigned vigorously for the FERC to extend the West-wide price mitigation measures it put in place during the 2000-2001 Western electricity crisis. While FERC did not ultimately extend all aspects of its price mitigation measures, it did extend the "Must Offer Obligation", thereby requiring all resources not previously scheduled or on planned outage to be available to the ISO for real-time dispatch. This measure has been critical in preventing physical withholding from the market.

Second, as a backstop in case FERC did not extend all elements of its then existing price mitigation measures, the ISO proposed in its May 1, 2002 MD02 filing the following additional measures to mitigate economic withholding: 1) an Automatic Mitigation Procedure ("AMP") that mitigates price bids in excess of certain established thresholds down to either previously accepted bids during competitive conditions or to pre-established bid levels (the ISO's "AMP" proposal is based largely on a similar system in place at the New York ISO); and 2) a "damage control" bid cap intended to prevent prices from exceeding a defined level. The ISO implemented the AMP measures, although at wider margins than had been requested, at the end of October 2002, and the market has remained stable thus far.

Finally, a critical feature of any market design is local market power mitigation ("LMPM"). The ISO proposed certain LMPM measures that would apply when the ISO needs to dispatch a resource at a specific location either to address recurring local system reliability needs or to address certain system contingencies, such as the outage of a specific transmission line. Under these circumstances competition among suppliers

is usually absent, so local generation may be able to exercise local market power and the bids on those "local monopoly" resources would need to be mitigated. In its July 17, 2002, order on MD02, FERC rejected the ISO's original LMPM proposal and directed the ISO to use the AMP mechanism to address local market power concerns. The ISO is continuing to assess the need for additional or refined LMPM measures, and intends to pursue FERC approval in the near future for implementation of such measures when the ISO's long-term design goes into effect.

Resource Adequacy

The ISO has long recognized that a resource adequacy program is an integral component of any market design and price mitigation strategy. Originally, as part of its MD02 proposal, the California ISO proposed to establish an "Available Capacity" obligation (ACAP). Concurrent with the development of the ACAP concept, a number of California state agencies initiated rulemakings or other proceedings related to resource adequacy, with active participation by the ISO. In light of the significant progress that had been made in this area, the ISO filed a motion with FERC on January 16, 2003 requesting a deferral of action on the ACAP element of MD02. The ISO supports the State of California continuing its traditional primary role in determining how best to ensure resource adequacy, and would urge FERC to allow those efforts to continue prior to ordering users of the ISO-controlled grid to meet an ISO-based capacity mechanism.

State authorities play an important role in ensuring resource adequacy by making policy decisions about resource diversification, demand response, investment incentives and reserve margin requirements. The ISO supports California's efforts to establish a capacity obligation for load serving entities as well as its efforts to promote development of adequate system reserves and establish a statewide target reserve level.

Status of the MD02 Process

The California ISO originally proposed, and continues to propose, a prudent and phased implementation for MD02. We proposed to implement MD02 in four phases: Phase I – Price Mitigation and Real-Time Economic Dispatch; Phase II – Integrated Forward Market; Phase III – LMP; and Phase IV – ACAP. As noted earlier, the ISO has asked FERC to defer consideration of the ACAP proposal. Part of Phase I (Phase IA) of MD02, Market Power Mitigation, was implemented in October of 2002 and is working well.

In its July 17, 2002, order on MD02, the FERC did not rule on all elements of the ISO's MD02 proposal. Therefore, and based on the need to update certain elements of the California ISO's proposal, the California ISO intends to file an updated proposal with FERC within the next several months, once the LMP studies explained above are either complete or policymakers are comfortable that the ISO can proceed with the filing prior to completion of the studies. Thus, implementation of final phases of the MD02 proposal

is dependent on a number of factors, including receiving the necessary regulatory approvals.

The next phase of MD02, Phase IB, will focus on a new, more efficient, real-time economic dispatch system and penalties for uninstructed deviations. It is currently targeted for implementation in the fall of 2003.

Phase 2 of MD02 proposes to establish an Integrated Forward Market. The timing of this phase, as well as the Locational Marginal Pricing component of MD02 (Phase 3), is dependent on FERC's approval of the ISO's revised market design proposal when it is filed. The ISO will not file an amended MD02 conceptual proposal with FERC until we have had an opportunity to discuss its content and purpose with stakeholders and key policymakers and the ISO Board authorizes its filing.

In the meantime, we expect to propose additional ISO authority to enforce market rules. The Oversight and Investigations Activities Review is separate from MD02, but will work in concert with the new design elements to foster a fair and competitive market. Components of this proposal include penalties for market manipulation which degrades system reliability and is detrimental to market efficiency, clear definitions of behavior that is and is not acceptable, and close coordination with the State Attorney General and other investigatory agencies.

MD02 and SMD

In closing, I would like to add a few words about FERC's Standard Market Design (SMD) proposal. FERC's proposed rule, as stated on their July 31, 2002 Notice of Proposed Rulemaking, is directed at facilitating competitive wholesale electricity markets with clear and stable rules and creating incentives for investments in electricity infrastructure.

The SMD proposal shares many of the broad goals that we have established for ourselves in California in our own market design initiative and, in large part, the services proposed by FERC are similar to those already operating in some states and regions of the country. The proposed Standard Market Design is consistent with many of the design changes proposed in MD02. Notwithstanding the many similarities and consistencies, there are aspects of FERC's proposal that may not be suitable for application in California or that may be duplicative of policies or mechanisms established or proposed at the state or regional level. On these matters, we believe that FERC should defer to state or regional entities before prescribing a standard, one-size-fits-all solution.

It is our hope that California's MD02 initiative can serve as a model of how the unique needs and characteristics of individual regions can be accommodated within a relatively uniform market design format to ensure reliable and nondiscriminatory transmission service and provide tangible benefits to consumers.

Mr. OSE. I thank the gentleman for his time and his testimony.

Our next witness is Karen Tomcala from Pacific Gas and Electric. Welcome. You have 5 minutes.

Ms. TOMCALA. Thank you, Mr. Chairman. I am Karen Tomcala, vice president of regulatory relations, of Pacific Gas and Electric Co.

I appreciate the opportunity to testify before you here today, and I would ask that my full written testimony be submitted into the record.

Mr. OSE. Nobody is going to object to that.

Ms. TOMCALA. PG&E supports the ISO's MD02 efforts, because a well functioning wholesale power market is necessary for utilities like PG&E to provide the reliable service our customers require. We should all recognize that the MD02 related tasks before the ISO are both technically complex and politically sensitive, and the ISO must move forward respecting both of those facts.

With this in mind, I'd like to emphasize the processes necessary for the ISO to achieve a successful MD02 program. First, the ISO must coordinate its market redesign activities with State efforts. Fixing California's energy market requires both Federal and State regulatory attention. The California PUC, under new leadership and in coordination with the other California energy agencies, is beginning to construct a coherent model for the State's energy future. The ISO's activities must proceed in synchronization with these efforts, so that its ultimate MD02 product supports the emerging model.

Second, the ISO must provide an effective process for stakeholder participation and input in developing MD02. The energy crisis has shaken the confidence of everyone involved. Redoubled efforts to ensure that stakeholders' concerns are heard and addressed in the MD02 process are necessary to establish confidence that California will have a fair and stable market design on which participants and consumers can rely. Creating such stakeholder buy-in can provide the additional benefit of minimizing litigation, both during the design process and down the road. Our collective resources are better dedicated to fixing California's market and bolstering the State economy.

Third, the ISO must develop, as necessary, and engage in regional coordination processes that recognize the regional nature of the western market. As has often been discussed, the seasonal exchange of power in the West has benefited customers across the entire area. To retain these synergies, the ISO must work cooperatively with the region to provide appropriate mechanisms for addressing seams issues between the Pacific Northwest, California and the Desert Southwest. Such a regional approach does not require that the market designs in western States be identical, only that they be consistent enough to permit the regional cooperation and coordination that have been the hallmarks of the western market for years.

Examples of issues that should be coordinated across seams include operational and commercial rules, market mitigation and resource adequacy, all of which are more appropriately addressed in the regional footprint of the market and discussed further in my written testimony.

Finally, by engaging in the processes I have just described, the ISO can do much to create a well functioning wholesale power market in California. The ISO, through its role as a non-discriminatory grid manager, is positioned to provide a range of transmission related benefits to the regional electric power market, including more efficient and reliable operations, transmission pricing that eliminates so-called “rate pancaking,” improved congestion management, improved reliability through application of its open access transmission tariff, and more coordinated planning of transmission investment. All of these activities will result in a robust transmission system for the benefit of consumers.

In tandem with transmission benefits, getting essential market rules right will ensure that MD02 provides the most reliable service and the greatest protections available for consumers. One example of getting it right would be using MD02 to craft mitigation rules targeted to address specific market problems. The crisis demonstrated that inappropriate or uncoordinated mitigation is a potential source of gaming. When price caps in California were low relative to neighboring States, some suppliers were motivated to export power from California, thereby making the supply situation in the State worse.

Another way in which the ISO can use MD02 to get it right is to implement stable, transparent market rules, an essential precursor to investment in new infrastructure. The upheaval associated with the California crisis, which is not yet fully resolved, has chilled investment in the State, leading to projections of supply shortage recurrence in the 2007–2008 timeframe. Implementing stable rules on which investors can rely can reverse this trend and ensure fully adequate resources.

The fact of the matter is that doing all these things may take some time. But doing them right is the most important objective. Taking the extra effort to coordinate, strive for consensus, plan and implement MD02 properly is the only way to provide customers with the stable, reliable service that they deserve.

Thank you, Mr. Chairman. I’d be pleased to answer any questions.

[The prepared statement of Ms. Tomcala follows:]

Testimony of Karen A. Tomcala
Pacific Gas & Electric Company
Before the Subcommittee on Energy Policy,
Natural Resources and Regulatory Affairs
Committee on Government Reform
U.S. House of Representatives

April 8, 2003

Good afternoon Mr. Chairman and members of the Subcommittee. I am Karen Tomcala, Vice President of Regulatory Relations for Pacific Gas and Electric Company. PG&E is the northern and central California utility that delivers natural gas and electric service to one in every 20 Americans. I appreciate the opportunity to testify before you today regarding the California Independent System Operator's (ISO) efforts to reform California's wholesale energy market, a critical endeavor for ensuring reliable electric service for California consumers.

We all know by now that the California energy crisis of 2000-2001 resulted from a combination of factors, inadequate resources and a flawed market design being primary among them. Under mitigation measures ordered by the Federal Energy Regulatory Commission in June 2001, the California energy market is currently functioning with a must-offer requirement, bidding and price mitigation measures, and adequate resources. Nevertheless, much work remains to ensure a stable, reliable wholesale market for the long-term. FERC has recognized this fact and ordered a redesign of the California market to correct the potential for dysfunction and inefficiency inherent in the current design, and the California ISO has responded by initiating a proceeding known as Market Design 2002 (MD02).

PG&E supports the ISO's efforts because a well-functioning wholesale power market is a necessary component for utilities like PG&E to provide the reliable service our customers require.

We must all recognize that the MD02-related tasks before the ISO are both technically complex and politically sensitive, and the ISO must move forward respecting both of these facts. With this in mind, I would like to emphasize the processes necessary for the ISO to achieve a successful MD02 program.

First, the ISO must coordinate its market redesign activities with state efforts. Fixing California's energy market requires both federal and state regulatory attention. The California Public Utilities Commission, under new leadership and in coordination with the California Energy Commission and the California Power Authority, is beginning to construct a coherent model for the state's energy future. The ISO's activities must proceed in synchronization with these efforts so that its ultimate MD02 product supports the emerging model.

Second, the ISO must provide an effective process for stakeholder participation and input in developing MD02. The experience of the utilities and others who were on the front lines of the crisis is too valuable a resource to be ignored. Moreover, the crisis has shaken the confidence of everyone involved. Redoubled efforts to ensure that stakeholders' concerns are heard and addressed in the MD02 process are necessary to re-establish confidence that

California will have a fair and stable market design on which participants and consumers can rely. Creating such stakeholder buy-in can provide the additional benefit of minimizing costly and time-consuming litigation, both during the design process and down the road. Our collective resources are better dedicated to fixing California's market and bolstering the state economy.

Third, the ISO must develop as necessary and engage in regional coordination processes that recognize the regional nature of the Western market. As has often been discussed, the electric power system in the West is interconnected by an extensive transmission system that has been used to optimize the region's resources for many years. For example, during the fall and winter months, mild temperatures in California create surplus generation in the state, which can be used to help meet high heating demands in the Pacific Northwest. Conversely, during the late spring and summer months when demand in the Northwest is generally moderate due to milder temperatures, surplus hydroelectric power is transmitted to California where it is needed to meet high cooling demands.

To retain these synergies that have greatly benefited consumers all across the West, the ISO must work cooperatively with the region to provide appropriate mechanisms for addressing seams issues between the Pacific Northwest, California, and the Desert Southwest. Such a regional approach does not require that the market designs in Western states be identical – only that they be consistent enough to permit the regional cooperation and coordination that have

been the hallmarks of the Western market for years. Examples of issues that should be coordinated across seams at the regional level include:

- Operational and commercial rules: Such rules must be sufficiently compatible so as not to preclude market participants from conducting business across state boundaries, for instance providing consistent timing for submitting energy schedules prior to the close of a market.
- Market mitigation: Because the energy marketplace in the Western United States traverses state boundaries, market mitigation measures should be coordinated across the same geographic footprint.
- Resource adequacy: Market rules addressing resource adequacy should be coordinated on a regional basis to recognize the interconnected nature of the energy market in the West and the benefits available from the seasonal sharing of resources.

Finally, by engaging in the processes I've just described, the ISO can do much to create a well-functioning wholesale power market in California. The ISO, through its role as the non-discriminatory grid manager, is positioned to provide a range of transmission-related benefits to the regional electric power market, including more efficient and reliable operations, transmission pricing that eliminates so-called rate pancaking, improved congestion management, improved reliability through application of its open access transmission tariff, and more coordinated planning of transmission investment. All of these activities will result in a robust transmission system for the benefit of consumers.

In tandem with transmission benefits, getting essential market rules right will ensure that MD02 provides the most reliable service and the greatest protections available for consumers. One example of getting it right would be using MD02 to craft mitigation rules targeted to address specific market problems. The crisis demonstrated that inappropriate or uncoordinated mitigation is a potential source of gaming -- when price caps in California were low relative to neighboring states, some suppliers were motivated to export power from California thereby making the supply situation in California worse. Another way in which the ISO can use MD02 to get it right is to implement stable, transparent market rules, an essential precursor to investment in new infrastructure. The upheaval associated with the California crisis, not yet fully resolved, has chilled investment in the state leading to projections of supply shortage recurrence in the 2007-2008 timeframe. Implementing stable rules on which investors can rely can reverse this trend and ensure fully adequate resources.

The fact of the matter is that doing all these things may take some time. But doing them right is the most important objective. Taking the extra effort to coordinate, strive for consensus, plan, and implement MD02 properly is the only way to provide customers with the stable, reliable service that they deserve.

Thank you Mr. Chairman. I would be pleased to answer any questions.

Mr. OSE. Thank you for your testimony.

We'll go right to Mr. Ackerman for 5 minutes. He joins us from the Western Power Trading Forum.

Mr. ACKERMAN. Thank you for getting the name right, Mr. Chairman. My name is Gary Ackerman, and I am executive director of the Western Power Trading Forum, a non-profit trade association dedicated to enhancing competitive energy markets in the western States.

I appreciate the opportunity to offer my comments in addition to the written testimony I have submitted to your subcommittee regarding the efforts of the California ISO and the Federal Energy Regulatory Commission to redesign California's restructured market.

First, let me say that the people I represent are the folks providing the key ingredient to making our homes and businesses safe and secure; that's electric energy. They provide the energy to light the dark spaces, and connect folks into the 21st century. They are the people who build alternative energy projects that emit fewer pollutants, sustain our vital natural resources and lessen our Nation's dependence on foreign oil.

Notwithstanding the negative press that has surrounded our industry of late, we have a vision whereby consumers enjoy lower average energy costs through competitive markets. And, we remain steadfast in our desire to show you and the Nation what can be achieved. Without competition, consumers are stuck with a single energy provider, and costs are passed through to the ratepayers.

With competition, private companies battle for the right to serve consumers, thereby lowering average prices, with all the financial risk borne by the companies, not the ratepayers. For example, my group updated a comparison of the average monthly wholesale prices in California since deregulation began in California in 1998. We compared it to the pre-deregulation just and reasonable generation component of retail rates.

The outcome is clear. The deregulated average for the full 5 years since competition began is lower than the utility's cost to provide the same even with the bumps and perturbations of the well documented wholesale price spikes that occurred during the crisis.

Had Californians the opportunity to pay competitive wholesale prices, as opposed to paying the just and reasonable price, then California consumers would have saved $3.7 billion that otherwise went to paying their electric bill. If one adds to that savings the proposed refund amount announced by FERC 2 weeks ago, then the total 5 year consumer benefit would be $7 billion. That's not a bad value in either case for 70 percent of the consumers in your State.

Market design in the West, particularly in California, is moving forward in fits and starts. The worst design will suffice amid abundant energy supply. The best design may falter in a shortage. I would encourage this subcommittee, the Commission, and the California ISO, rather than getting all the elements of the design perfect, to spend more time on the elements of the design that affect private investment in new generation plant and transmission. There is a common belief that getting the rules just right will eliminate market manipulation and the abuse of market power.

But the other side of the coin is that suppressing market forces to the point where markets don't exist any more will further exacerbate the looming shortage that will occur when the economy rebounds and if there is a drought in the Pacific Northwest. In short, no one is going to care how hard we tried to get the market rules right in 2003 when the lights flicker in 2005.

My written testimony covers the specific items the subcommittee has posed to the panel and I won't repeat those answers here. However, I look forward to answering your questions, and again, thank you for the opportunity to appear before you and provide our point of view.

[The prepared statement of Mr. Ackerman follows:]

April 4, 2003

The Honorable Doug Ose
Chairman, Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
United States House of Representatives
2157 Rayburn House Office Building
Washington, D.C. 20515

RE: California Market Design 2002

Dear Chairman Ose:

My name is Gary Ackerman, and I am executive director of the Western Power Trading Forum (WPTF), a non-profit California trade association dedicated to enhancing competitive energy markets in the Western States. We are pleased to offer these comments in response to your invitation to testify before the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs on April 8, 2003.

WPTF Comments on the CAISO Stakeholder Process

In fairness to the CAISO staff, they have certainly solicited and received enormous amounts of stakeholder input. Quite often, much of this input is in mutual opposition, guaranteeing that a large segment of stakeholders will be upset, regardless of the choices the CAISO makes.

However, the CAISO should establish a stakeholder advisory committee with representatives from the various stakeholder constituency groups (IOUs, municipals, generators, etc) and a formalized voting structure. Such a committee would be advisory only, but it would provide stakeholders with a direct voice in the market redesign process

and a mechanism for communicating directly with the CAISO Board. Finally, a committee of stakeholders would simplify the CAISO's overwhelming burden of trying to develop new design elements while having to "educate all market participants" simultaneously through numerous, lengthy and time-consuming meetings. A stakeholder advisory group would provide the appropriate platform for CAISO personnel to discuss new market-design elements, and to quickly seek resolution of existing market problems.

There are some differences of opinion amongst the WPTF members whether or not the lack of an independent Governing Board, as it currently stands, would impede the successful implementation of a Stakeholder Advisory Committee. Whereas a few members believe that a stakeholder advisory committee could be established within the current CAISO governance structure, most WPTF members believe that the current California Governor-appointed CAISO Board does not seem to listen to the market participants. The Board follows the political whims of the State Government. Hence, the current CAISO Board would not weigh properly the advice given by an advisory committee

Comments on Sequencing the Order of Design Elements in MD02

Given the history of resource in_adequacy in California, WPTF believes that this issue should be addressed with the highest level of priority. A resource adequacy mechanism will allow the CAISO to monitor the level of demand and available supply on a forward looking basis, and if necessary, take actions to ensure that adequate reserve margins are maintained. The CAISO proposed a resource-adequacy mechanism in its initial MD02 filing in June 2002, but has since requested that FERC defer consideration of its proposal pending resolution of the State's efforts to develop a workable mechanism. These initiatives, however, do not displace the need for a comprehensive resource adequacy mechanism administered by the CAISO, and we have urged FERC to require CAISO to continue its development efforts.

Congestion management reform is also a key priority and should be implemented as expeditiously as possible. The current congestion management process is not transparent and requires the CAISO to perform all congestion management in real time using manual procedures. What is the purpose of spending millions of consumer dollars on software programs to automate congestion management when in the final analysis the CAISO uses pencil and paper to resolve the crowded usage of critical transmission paths?

Comments on Price Controls, Mitigation, and Incentives to Invest

We believe the MD02 development efforts are primarily aimed at establishing price controls, and do not address the root cause of inadequate supply in a useful manner. Local market power arises from either i) a lack of infrastructure or, ii) concentration of generation ownership. These factors are unique to the local area and differ from statewide or regional market conditions.

Cost-based mitigation is inappropriate for several reasons. First, such a restriction provides no financial incentive for anyone to rectify the situation, and merely entrenches the problem. Second, resources located in places that are especially advantageous to the grid deserve financial recompense to recognize that value.

Price mitigation and cost-based compensation measures only increase regulatory uncertainty and reduce the potential for private investment. Price control measures, and punitive regulatory and legislative initiatives always discourage investment.

Comments on an Isolated Market Design

Due to California's dependence on electricity imports from the Pacific Northwest and the Desert Southwest, any market design that does not include input from other states will be disadvantaged. There must be a market design that seeks to address, not only California's specific issues, but also other issues that will have an impact on power flows throughout the entire region.

A single market design for the entire Western Interconnect would maximize efficiency, and consumer benefits for the entire area. Currently, California and the rest of the Western Interconnect have substantially different market designs. The three RTO's in the region have created the Seams Steering Group – Western Interconnection (SSG-WI) to develop an integrated Western market. One of SSG-WI's primary tasks is the development of a standard market interface mechanism through which market participants throughout the West can transact business in all three RTOs. This market interface is intended to account for the different market design proposals of each RTO.

The regional planning feature of the FERC's Standard Market Design (SMD) proposal offers the best hope for integrated resource planning and market development, which is the solution to efficient energy markets. While the FERC seems willing to allow at least three RTOs to move forward in the West, WPTF believes the importance of region-wide resource planning and market development cannot be overstated. Also, we hold that a more integrated regional planning function for transmission would highlight some of the existing problems. For example, there are significant amounts of new generation in Arizona (and of course the Border region of Mexico) that are essentially stranded in the Southwest due to the lack of new transmission facilities, and therefore limited in meeting the energy needs of California and the Pacific Northwest.

Comments on Regional Market Monitoring

WPTF strongly supports the creation of an independent West-wide market monitor that is the primary source of analysis to FERC regarding the efficiency of RTO-operated markets and the behavior of RTOs and RTO market participants. It is vital that a regional market monitor be in place to monitor West-wide market issues as well as the performance of the RTOs themselves (to the extent that the local market monitors are not independent of RTO management). A regional monitoring and mitigation program will be less susceptible to political influence from any particular state.

Comments on the Impacts from Open-Access Transmission and Competition

WPTF believes without reservation that open access transmission not only increases competition in electricity markets, but also is absolutely crucial for their existence. A policy of standardized, non-discriminatory open access transmission service is vital to creating a robust wholesale electric power market that will ultimately lead to lower prices and more reliable service to end-use customers. Standardized transmission service increases competition in electricity markets by eliminating discriminatory treatment of market participants, removing barriers to entry by non-incumbents, and allowing suppliers to compete based on economic efficiency. Standardized transmission service has a positive impact on reliability by facilitating new infrastructure development and optimizing the commitment and dispatch of resources within the regional market. Because open access ensures a level playing field, it provides opportunities for environmentally beneficial resources to compete effectively.

With regard to reliability, as long as parties are not artificially restricted in their contracting activities, competition improves reliability because it increases options. This is true from both a "planning ahead" perspective, and from a "scrambling in real time" perspective. The potential negative to reliability from a restructured, competitive market

comes about when it is "overly administered" with restrictive rules that have unintended consequences, and actually reduce resource availability.

Finally, competition provides an additional opportunity for environmental benefit. Pilot programs have consistently proven that, if consumers have retail choice, a moderately high percentage will voluntarily choose to purchase "green" power, even when it raises their rates to a moderate degree. What could be more in tune with American principles and values than obtaining significant environmental improvement via individuals exercising freedom of choice?

Thank you for the opportunity to share with you and your Subcommittee the thoughts of our membership. I look forward to answering any questions during the hearing in Washington, D.C.

Sincerely,

Gary B. Ackerman

Executive Director

Mr. OSE. Thank you for joining us, Mr. Ackerman.

Our next witness is Jan Smutny-Jones. Mr. Smutny-Jones, you are recognized for 5 minutes.

Mr. SMUTNY-JONES. Thank you, Chairman Ose. My name is Jan Smutny-Jones. I am the executive director of the California Independent Energy Producers. I also previously served as the Chair of the ISO from until June of probably January 2001. I would like to submit some written comments for the record and I am just going to summarize them here today, in the interest of time.

Mr. OSE. We'll accept them without objection.

Mr. SMUTNY-JONES. Mr. Chairman, in the beginning of today's hearing, you characterized California as continuing to live in an intolerable state of energy purgatory. I share that view, although I believe that California is on the road to recovery. Hopefully the road to recovery is not like the road to hell and just paved with good intentions. I think our purpose today is to make sure that the primary work before us with regard to market restructuring actually takes place.

Key to the infrastructure development that you indicated is necessary in California is stability. Stability requires clearly articulated market rules, which I think you and Chairman Wood talked about previously. Second, a coherent procurement process, which I think several of the previous witnesses have suggested is underway in California. There have been some positive developments on the part of the State with developing procurement roles. And, last, but certainly not least, a redesigned market structure, which is currently underway in California ISO.

What I'd like to focus on here is the need for resource adequacy. IEP is in the resource adequacy business. Our members build and operate power plants, both gas-fired and renewable. There's over 10,000 megawatts added to California since restructuring, and have been added to California's resource mix. Importantly, these facilities are not only reliable, but have shifted the development and operational risks from basically ratepayers to private sector developers and operators of these plants. That's a huge benefit to the people of California.

An ancillary benefit of this modernization also has very real, significant environmental benefits. The Calpine plant, for example, in Sutter County, produces electricity with 98 percent fewer emissions than the average plant would in terms of the fleet in 2000. So that's significant.

The resource adequacy component of the CAISO is currently being held in abeyance until the State completes their work in November of this year. I want to underscore this point. It is absolutely critical that the work that the State is doing is fully integrated into the ISO's tariffs. Otherwise, this is not going to work and we are going to revisit the problems that we've previously experienced.

Some other specific market rules that I think we need to be going forward with here is, the market redesign in California needs to be based on sound economics and markets that work elsewhere. There is a significant debate going on about why California is different and why the West is different and whatever. Fine. Let's identify where we are different and move on. I for one used to hold that view very religiously, but I think we need to just recognize the fact

that there are other markets that do seem to work elsewhere and now is not the time to reinvent the wheel.

We need a day ahead market so people can actually trade electricity. As I indicated earlier, a resource adequacy component is absolutely critical to overall market stability. And, we need a stakeholder advisory committee that basically is able to address issues that are coming up in a way that provides people a meaningful opportunity to basically impact the outcome of rules that are under development.

Last, but not least, the seams issue. This is a regional market. California is not an island, has not been for a very, very long time. We need regional rules that are monitored and basically enforced on a regional basis. We think that's of critical import.

And, so in closing, I would just like to conclude that the energy crisis was a convergence of a serious supply and demand imbalance, poor market design and inadequate regulatory response. It need not and should not be repeated. We need to encourage infrastructure investment providing new supply, implement meaningful market redesign and ensure that our regulatory institutions are reformed in a manner that is responsive to modern market realities. It is time for action, because quite candidly, Mr. Chair, we cannot afford another failure.

Thank you very much.

[The prepared statement of Mr. Smutny-Jones follows:]

Comments of Jan Smutny-Jones

Before The
Subcommittee on Energy Policy, Natural Resources
And Regulatory Affairs
Of The Committee on Government Reform

Concerning the Market Redesign Efforts of the
California Independent System Operator

April 8, 2003

Thank you Mr. Chairman and members of the Committee for the opportunity to testify o the market redesign efforts of the California Independent System Operator. I am Jan Smutny Jones, the Executive Director of the Independent Energy Producers.[1] I previously served a Chair of the California Independent System Operator (CAISO) from Start-up through January 2001.

I would like to briefly discuss Market Redesign efforts made in California and some concerns I have that problems may arise again if we fail to learn our lessons from the past.

California is on the road to recovery. Several initiatives are underway contributing to stability in California's energy market, but unresolved issues and political rhetoric continue to hamper progress. We must learn from our past mistakes, rely upon experts and proven markets elsewhere and move forward. Now is not the time to reinvent the wheel.

You have addressed a series of critical issues in your questions submitted to the panelists and I would like to briefly review some solutions that will continue the road of recovery. (IEP has also submitted written testimony responding to the questions raised by the Committee[2])

I hope your will take away an understanding of the following overall issues that need to be addressed going forward:

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[1] IEP is California's oldest nonprofit trade association representing the interests of electric generators in California. IEP's members collectively own and operate more than 20,000 MW of installed generating capacity participating in California's competitive markets, and some are involved with new project developments that will operate within the competitive markets. Other members, consisting of consultants and law firms, provide support services for the industry.

[2] IEP's testimony can be accessed at www.iepa.com or by calling (916) 448-9499

- **Stability**: A core cause of the energy crisis was an inadequate infrastructure Infrastructure investments require regulatory and political stability. This can be provide by clearly articulated market rules, a redesigned market and coherent procuremen process.
- **Resource Adequacy:** IEP member companies are in the resource adequacy business. W have added almost 10,000 MW of new generation over the last four years. These project have included adding additional renewables, building new plants and the modernizing existing units. This is providing reliable, efficient and environmentally friendly energy tc California customers. Establishing a Resource Adequacy Requirement (RAR) is a fundamental component of Electricity Market Design. A RAR will allow the CAISO anc key energy agencies and municipalities, to accurately account for loads and resources in a forward looking, consistent, verifiable manner. This will help ensure that the specific RAR goals are consistent with the State's overall resource needs and the lights stay on.
- **Market Structure:** A workable market design based on sound economics and proven markets structures should be established as soon as possible. California's previous experiment with an unproven market structure was a disaster. There is no time to waste trying yet another experiment in order to appease certain interests. Critics of these proven markets need to come forward with solutions or alternatives. As Mark Twain put it: "Any fool can criticize, condemn and complain, most fools do".

  The market structure in California should mirror proven markets elsewhere. We should not make modifications to satisfy certain sectors when experts warn of the dangers. For example: One utility is arguing it should be allowed to "opt out" of security constrained economic dispatch. Large utilities "opting out" would appear to undermine the concept of a comprehensive market redesign.

  One of the most contentious issues surrounding market design in California is the implementation of Locational Marginal Pricing (LMP). Locational Marginal Pricing is a tool that identifies and quantifies transmission congestion at specific substations, which are also known as "nodes". This LMP tool allows for the efficient dispatch of the system and potentially provides incentives for infrastructure development or Demand Side Management (DSM). LMP is a foundation of the successful Eastern markets.

The efforts of the ISO to implement an LMP based market design have been m with significant political resistance from various market participants, specifically relate to transmission right allocation and physical vs. financial congestion revenue righ (CRR). There are ways to address these concerns by implementing a model in transitional manner and by allowing nodal load pockets to be aggregated and average through ratemaking. However, this load aggregation may only solve issues for thos regulated by the CPUC.

It is critical that there is a transition to LMP implementation in California. Th issues identified above do need to be resolved and the market will need to adjust to a LMP based market. A transition will also provide an opportunity to study real dat determining the actual effects of LMP under real market conditions.

- **Establishment of a Stakeholder Advisory Committee:** A well functioning stakeholde process is the key to a successful market fostering open and honest communicatio between all market participants, including the CAISO and the Federal Energy Regulator Commission. A meaningful stakeholder process can identify and resolve issues, or at a minimum, reduce the number of issues that require further litigation reducing costs for al participants, including the CAISO.

  IEP, working in conjunction with other stakeholders, has developed a proposa establishing a Stakeholder Advisory Committee (SAC) similar to the structures found ir other successful markets. This structure can and should be implemented immediately regardless of the CAISO corporate governance structure in place.

- **Seams Issues:** There are several critical seams issues that need to be addressed in the West. It is important that the market structures adopted by California, RTO West and West Connect be not just compatible but complementary. Clear consistent markets and rules across the entire West would have gone a long way to prevent many of the problems experienced during the crisis.

  For example an independent West Wide Market Monitor should be established that evaluates the markets in the WECC over a broad geographic area and timeframe. This market monitor should be independent of the RTO's management and not subject to its direction. This Regional Market Monitor should report directly to the FERC's Office of Enforcement and the Board of the Regional Transmission Organization.

In conclusion, the energy crisis was a convergence of a serious supply and deman imbalance, poor market design and an inadequate regulatory response. It need not an should not be repeated. We need to encourage infrastructure investment providing nev supply, implement meaningful market redesign and ensure that our regulatory institution are reformed in a manner that responsive to modern market realities. It is time for action We cannot afford another failure.

Thank you

Mr. OSE. Thank you for joining us today.

Our final witness is Mr. George Fraser, who's the general manager of the Northern California Power Agency. Mr. Fraser, you're recognized for 5 minutes. And, by the way, his grandchildren are in the audience today.

Mr. FRASER. Thank you, Mr. Chairman. We are a different segment of the market, as opposed to folks who are in the business to make a profit. I represent numerous community-owned utilities in Northern California. We are not merchants, we are integrated utilities in that we provide the generation, we purchase and sell power, to the extent that it's surplus, and we serve our retail customers.

Our point of view regarding the Market Design 2002 is that it will not, as it's currently been described to us and designed, facilitate bilateral contracts. And, we live on bilateral contracts. We are encouraged by what Mr. Winter said, because we believe that meaningful resource adequacy is absolutely essential. And, before you start changing a new design and getting involved in a new experiment in California, we need to make sure that we have sufficient generation and especially transmission, so that we don't have to deal with congestion throughout California.

There is no reason from what we can see right now to believe that Market Design 2002 will provide incentive for investment either. Standard market design is supposed to encourage voluntary bilateral contracts. We are very encouraged by the words we hear, but what we see in the detail of the design doesn't appear to support bilateral contracts.

When a detailed proposal is put forth that truly supports voluntary bilateral contracts, I think you'll find us supporting such a plan. We think it's more important to do this design right rather than doing it fast, so we are urging that this thing be carefully put together and not rushed. The current process seems to be geared toward managing stakeholders, and moving toward a pre-ordained outcome rather than actually including the input from stakeholders as we go.

Just to reemphasize my point of view about transmission, I believe Spencer Abraham has been quoted as characterizing the existing transmission in California as Third World. We don't see any fundamental elements of Market Design 2002 that addresses transmission construction and transmission adequacy.

Let me move ahead and talk about market incentives and resource adequacy. Let me summarize my verbal comments here and they're consistent with the written comments we've turned in. Market Design 2002 is inconsistent with the stated goal of SMD to encourage and facilitate voluntary bilateral contract arrangements.

We believe that resource adequacy must precede market design, that the plan with Market Design 2002 is a serious case of putting the cart before the horse. We are not starting out with resource adequacy, we are starting out with a new design. In its current state, we see, and we've studied Market Design 2002, we believe it lacks sufficient detail concerning such critical elements as the ones I've described, as well as congestion management and market power mitigation. We would like to, as I said, support the design

when we see more detail and see it tested in the relatively near future.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Fraser follows:]

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George Fraser
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Statement of the Northern California Power Agency
Before the House of Representatives
Committee on Government Reform
Subcommittee On Energy Policy, Natural Resources and Regulatory Affairs
Presented by George Fraser, General Manager
April 8, 2003

<u>Overview/Summary of Statement</u>

- NCPA has heard that the Federal Energy Regulatory Commission's (FERC) Standard Market Design (SMD) is intended to encourage and facilitate voluntary bilateral contract arrangements. NCPA supports the idea of bilateral contracting, but the reality is that the California Independent System Operator's (CAISO) proposed Market Design 2002 (MD'02) will not accomplish that end.

- The process being used to develop MD'02 is not sufficiently open to address stakeholder concerns. Rather than addressing concerns, the process seems more focused on managing stakeholders while fast tracking a pre-ordained outcome. This must change if the trust needed for any market redesign to succeed is to be established.

- As currently envisioned, the market design is to be phased in with resource adequacy measures to follow. This is a serious case of putting the cart before the horse. Resource adequacy, most especially measures to address transmission constraints must be dealt with first. Any other approach simply institutionalizes existing inadequacies.

- In its current form MD'02 lacks sufficient detail concerning critical elements such as congestion management, market power mitigation and resource adequacy to allow an informed analysis of it's potential to create incentive for investment in additional generation or transmission. In fact, NCPA sees *no* provision of the plan that addresses the critical inadequacy of the transmission system.

- NCPA is deeply concerned that California is getting out ahead of the rest of the Western Interconnect. Regional planning is essential to a durable, sustainable market.

Introduction

Good afternoon Mr. Chairman, members of the Subcommittee, my name is George Fraser, I am the General Manager of the Northern California Power Agency. NCPA is a nonprofit California joint powers agency established in 1968 to generate, transmit, and distribute electric power to and on behalf of its fourteen **members**: cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Ukiah, the Port of Oakland, the Truckee Donner Public Utility District, and the Turlock Irrigation District; and four **associate members**, Bay Area Rapid Transit District, Lassen Municipal Utility District, Placer County Water Agency, and the Plumas-Sierra Rural Electric Cooperative. Our member communities serve nearly 700,000 electric consumers in central and northern California.

As participants in whatever market redesign may ultimately occur, NCPA members are understandably concerned about and very involved in the MD'02 and SMD processes. We have seen, and felt, firsthand the severe consumer and economic impacts that occur when market design efforts fail. For this reason, NCPA's members are grateful for this Subcommittee's continuing attention to this critical issue.

The results of the failed market design – soaring prices, decreased reliability, and questionable business practices that have cost Californians billions of dollars – must be in our minds as we move forward with any redesign. The experience of California in 2000-2001 and recent events in Texas[1] underscore the importance of getting market design right, and the enormity of the potential consequences of getting it wrong.

The touchstone for this process has to be benefit to the consumers of California. Any market design must increase efficiency and reliability. It must be workable and practical. For these reasons, NCPA believes that any market design must be modeled realistically and tested vigorously prior to implementation. Not merely tested by the CAISO and FERC, but also verified by independent parties and stakeholders.

MD'02 Is Inconsistent With SMD's Goal Of Encouraging Bilateral Contracts

Throughout this process we have heard time and again that SMD is being designed to encourage voluntary bilateral contracts. NCPA strongly favors voluntary bilateral contracts as a way of doing business. They are efficient, they allow parties to mitigate risk and produce terms appropriate to the entities involved.

[1] According to a March 3, 2003 report from the Public Utility Commission of Texas' Market Oversight Division, peak market clearing prices frequently reached $990/MWh, an 18-fold increase from the previous week, during the extreme weather event of February 24-26, 2003. The report notes that the price spikes appear to be the result of concerted efforts by some market participants to raise the clearing price artificially.

The trouble is when we get into the details of MD'02 as proposed for California we see *nothing* that will facilitate or encourage this type of business arrangement. In fact, what we see is:

- A third party control operator running our generation.
- Insufficient durability in transmission rights to support long-term bilateral agreements.
- A central intermediary (middleman) with the result that all transactions are between buyer and intermediary, or seller and intermediary.

Under this type of structure, sellers and buyers are often unknown to one another. Accordingly, the only way to mitigate risk is to demand elevated credit assurances of all market participants. This, of course, inflates the market and drives higher prices to consumers. Further, every deal involves a third party and that party's costs. This too, will result in higher prices to consumers.

The proponents of SMD/MD'02 tell us that higher prices to consumers may be positive in the long term, in that it will send price signals that encourage development of new generation. The problem is that the added costs will not send price signals to generators, those signals will be lost at the intermediary. As a result, the plan will produce higher consumer cost, with no commensurate incentive to generators.

NCPA is prepared to support a plan that can be shown to encourage and facilitate voluntary bilateral agreements and long-term benefit to consumers. Until that plan is brought forward, in all of its component parts and in sufficient detail to allow complete analysis, NCPA will continue to advocate caution.

Stakeholder Process

Much has been said about the ongoing stakeholder process at CAISO. NCPA has been a participant in this process and very strongly believes that stakeholder involvement should be formalized. Specific lines of communication and a definitive commitment to a collaborative approach are essential to building confidence and trust in the process.

The details of any market design and all of its elements must be fully developed and communicated to stakeholders before implementation is commenced. The process must have real milestones and triggering events so that it does not appear that some aspects of the market design are being put in place even while stakeholder input is being asked for.

There must be a genuine commitment to the notion that the process will seriously consider stakeholder concerns and comments, and provide adequate responses as to how the comment is being incorporated or why it is not. This type of real consideration is essential to building trust and a feeling that stakeholder issues are being taken seriously.

To the extent that valid stakeholder concerns are ignored, rather than recognizably dealt with in the decisions, the resulting design will be unduly vulnerable to judicial challenge.

That does not assure the stability that is needed for any market to work, nor does it engender confidence in stakeholders or in the public.

Finally, there should be neither implementation nor phase-in of any aspect until the entire market design has been vetted, tested, verified and subjected to third party scrutiny.

Sequencing

Implementation of any market design must be mindful of the risk of putting the cart before the horse. A market design that builds on lack of generation and, just as importantly, inadequate transmission capacity will be fundamentally flawed. Adequate generation capacity, including sufficient reserves will help deter the possibility of market participant withholding during critical times.

Just as important in California is the bottleneck effect of the current inadequate transmission system. For decades, California pursued a strategy of building generation facilities outside of the state and transmitting the power into the state to meet demand. This approach works only so long as the transmission system keeps pace with generation and load. Unfortunately it has not.

Particularly in the Northern California area, business decisions made in a regulated market led to a policy of "least cost planning" for transmission purposes, in which the tradeoff was assumed to be the additional cost of energy from inefficient generation in isolated load pockets vs. the total cost of new transmission. The practical effect was to produce a much less robust transmission system than exists elsewhere in the State, or in the West in general, and one that leads to high congestion problems.

With the first foray into deregulation of the market, a great deal of generation was sold to entities who believed they were entitled to bid any price the market could stand, and the "least cost planning" regime produced a "most cost operations" result. NCPA believes the addition of substantial additional transmission is probably even more important than additions of generation capacity, although both are necessary for the sort of market regime contemplated by either MD'02 or SMD to succeed.

Market Incentives And Resource Adequacy

It is difficult to assess the incentive or disincentive effect of MD'02 in light of the lack of specificity regarding mitigation and implementation of certain critical elements (e.g., LMP, CRR). NCPA has historically maintained the position that the LMP/CRR approach serves as a disincentive to investment – particularly in generation – because parties will not have the long-term transmission certainty critical to bilateral long-term power supply arrangements. Given the current state of affairs in the California energy market, we do not believe that MD'02 will result in substantial improvement to the transmission system.

As we noted above, any market design that does not address the generation and transmission capacity constraints simply institutionalizes the fundamental problems that

underlie the problems seen in 2000-2001. As we learned, inadequate generation facilitates the possibility of withholding during critical times. Transmission bottlenecks create significant local market power situations. Both of these result in market distortions, and deprive consumers of any benefits that might come from a well-designed competitive market.

Until local market power situations can be resolved, mitigation must be in place. The mitigation measures must be specific to the identified problem, and well-defined in advance of the implementation of the market design as a whole. Only when viewed as a package in its entirety can market participants and consumers make informed decisions about the design and its potential to produce real benefit to consumers.

Regional Solutions

It is essential that California not isolate itself from the western region. The fact is that generation, transmission and markets are regional in nature. Any market design that does not incorporate this reality into its fundamental structure will not be able to deliver on the promise of benefit to consumers.

As we have seen, when California's markets are more restrictive or less profitable, power flows away from the state causing inflated prices and reliability problems. Conversely, when the state's market is seen as freer or more lucrative, our neighbors suffer and the transmission inadequacies are exacerbated.

For very practical reasons, California cannot adopt a parochial approach, but must act in concert with those who depend on the western grid system. This regional approach will allow for maximum efficiency, reliability and consumer benefit. This broad based design also allows for maximum use of a wide array of environmentally benign generation sources.

Regional Monitoring/Mitigation

As we pointed out above, the market for electricity is inherently regional, rather than local, in nature. Of course, when transmission constraints become a factor, as they do in California, the market will break down into smaller regions (sometimes quite local in scale), in which a few generators may have significant market power.

Since State authority is required for most entities to condemn land for a transmission right of way (unlike the situation under the Natural Gas Act), and since additions to the transmission grid are a key part of the necessary solution, California will have to remain involved at some level, unless Congress chooses to give FERC the sort of right of way authority it has over gas transmission lines.

However, the mitigation rules and the monitoring mechanisms, have to work throughout the West, since experience has shown that the entire WECC (which is not synchronously connected with the remainder of the country) operates as a single market, and that entities

can and will take advantage of different market rules to game the system. The experience of the 2000-2001 meltdown makes it clear to us, at least, that California cannot effectively attempt to control the market by itself, and that a broader regional approach is needed.

In our view, the market monitoring and mitigation approaches have to be uniform throughout the West, but the actual monitoring has to be implemented on a more local level designed to catch and halt the exercise of market power in the smaller areas into which the market breaks down – at least pending the completion of needed transmission upgrades.

Open Access

NCPA as a transmission dependent utility cannot serve its member communities without open transmission access at some level. It is not surprising then, that we have a long history of support for the concept. It must be noted however, that for open access to produce real benefit, it must be implemented correctly in a transmission system with adequate capacity. Without adequate capacity, it cannot have a positive impact on reliability.

Conclusion

In light of recent events, the public's confidence in the ability of markets to provide efficient, reliable electric service has been badly shaken. It is therefore essential that any new market design:

- Be consistent with the stated goal of SMD regarding bilateral contracts;
- Come from a very open, public process;
- Be subjected to realistic modeling vigorous testing and verification;
- Demonstrate benefit to consumers;
- Include effective resource adequacy provisions addressing transmission and generation;
- Is understandable, practical and workable; and
- Receive buy-in from those who will have to live within its rules.

NCPA has demonstrated its willingness to participate in the process to develop a plan that meets these conditions. Once these conditions are met, NCPA stands ready to support implementation and fully participate in the plan.

Thank you, Mr. Chairman and members of the Subcommittee for your continuing attention to this critical issue.

Mr. OSE. I thank the gentleman for his testimony.

As we said, everybody's statement, we've received it, we are entering that into the record. There's a couple things I want to go through in particular. The January 2003 report produced by the Public Policy Institute of California, which is entitled, "The California Electricity Crisis: Causes and Policy Options," lays out a series of goals that any market structure should achieve. And, these include lower prices, system reliability, efficient use of resources, administrative feasibility and environmental protection.

These are significant issues and many times very difficult to resolve, let alone grasp in total. I want to make sure that as we go forward through this hearing that those particular five contexts be the basis for the feedback you give us. Because that's essentially where we've got to go, is we've got to figure out how to stitch this all together. So with that particular thing in mind, I do want to proceed.

Now, you've all talked at one point or another in your testimony, either because we've asked you to or otherwise, about resource adequacy. The proposal for California, for its Market Design 2002, has pushed off the adoption of resource adequacy standards until the last phase. I happen to think that most if not all of the dysfunction we suffered in California was due to an inability of the utilities to enter into safe harbor, long-term, bilateral contracts. And, it seems to me that whatever we do in market design, we ought to make sure that we incorporate the ability to enter into short, medium and long-term contracts into that market design for our utilities.

Now, as I understand, Mr. Winter, CAISO has not been able to move forward on that because the California Public Utilities Commission basically hasn't taken up the challenge of resolving that issue. Am I correct in that?

Mr. WINTERS. That is correct. They came before our board and our chairman gave them until November 1st to come up with a plan and then he made it very clear that if they did not have a plan put together by that time, that he would continue with the request that we had made to FERC for the 112 percent.

Mr. OSE. That raises an interesting question, because when we had the first of these hearings, and this I am going to direct to Ms. Tomcala, when we had the first of these hearings, I asked a specific question whether or not the PUC had adopted, from a regulatory standpoint, safe harbor provisions for the investor-owned utilities to enter into long-term contracts. In other words, go ahead and do it, we are not going to second guess you.

I was told under direct questioning by Loretta Lynch that the PUC had adopted safe harbor provisions for the investor-owned utilities to go ahead and enter into long-term contracts. And yet, if that's the case, why are they now considering whether or not to do that? It seems to me there's a disconnection. The question is, has the PUC provided the investor-owned utilities the ability to enter into safe harbor, long-term contracts for the provision of power to their customers?

Ms. TOMCALA. The PUC has divided that question into two time related segments, the short-term, the intermediate, to get us over the hump, and the long-term procurement proceeding, which they're engaged in right now. So the PUC has provided us the abil-

ity to enter into contracts for the time being, but is still pursuing an integrated, long-term procurement proceeding that will look at the combination of some of the elements that you identified earlier, contracts, demand response, efficiency, those sorts of things and how they fit together for the long-term.

Mr. OSE. So you have the ability to enter into a long-term contract?

Ms. TOMCALA. We have the ability to enter into contracts. We would probably quibble over whether we have a safe harbor provision.

Mr. OSE. How important is a safe harbor provision to your ability to enter into those contracts?

Ms. TOMCALA. Tremendously important, not only for the ability to enter into those contracts, but also to return us to investment creditworthiness, which we feel is essential to provide the service that we must provide to our customers.

Mr. OSE. When you say you don't have the safe harbor provisions, what do you mean?

Ms. TOMCALA. What we mean is we are not in a position yet where our contracts won't be second guessed after the fact.

Mr. OSE. By whom? Why would anybody second guess your contracts? I mean, you're the utilities.

Ms. TOMCALA. Because we are still working out the standards for the long-term and the long-term procurement proceeding.

Mr. OSE. So this issue arose, I mean, I broached this issue in April 2001. And, you still don't have any definitive rules from the CPUC about what is or isn't acceptable for long-term contracting for power delivery.

Ms. TOMCALA. That's right. That procurement proceeding is continuing as we speak.

Mr. OSE. And, Mr. Winter, you're saying that the board of the ISO has given the PUC until November 1st to get their act in order?

Mr. WINTER. Correct.

Mr. OSE. Chairman Wood, under MD02 or any market structure, if people operating in the market can't get regulatory or political certainty until the last of the process, what does that mean for resolving all the—it seems to me that the delivery of power is what this is all about. What does that portend?

Mr. WOOD. It means you won't invest. And, that's what I think, honestly there's, I think all five of these folks have said the exact same thing on this issue from a different perspective. There's got to be, if California is going to regulate the retail customer, I think that's a choice that the legislature now has made. Kind of return to a more, to a traditionally regulated retail environment.

The approach has got to be one very similar to that taken in other States, that if you do a very organized process, which I understand from our staff's visit with the CPUC staff 3 weeks ago they're looking at, you do have to basically say, if you go through an open solicitation for power contracts and you take the best bid or lowest bid or whatever you define it to be, that will be de facto granted, that is the best choice, before you actually sign the contract.

These folks have to have that kind of certainty. Then these folks can go ahead and build and trade on that and it all works. But if you don't have that build-ahead component of this market, which we still don't have there today, then you do have, I think, what Mr. Winter pointed out, I guess I am going to put words in your mouth, but kind of a problem down the road and it may not be a very long road.

Mr. OSE. Mr. Fraser is a public agency, but Mr. Ackerman and Mr. Smutny-Jones have private side producers. Some of your members actually generate power, or at least would like to, and would like to sell it for a profit. And yet, you don't have a customer that you could enter into a long-term contract with. Do you have any input on this? Mr. Smutny-Jones.

Mr. SMUTNY-JONES. I would say the No. 1 problem in California right now is that there is not a long-term contract that you can take to a bank and get financed that basically comes out of a procurement process where PG&E or the other investor-owned utilities will know that they'll get cost recovery later on. It's a very significant problem.

The second point I want to make here, because even if the PUC comes up with, and I don't by the way think that this is rocket science, it shouldn't be that hard, but even if they come up with a perfect rule that applies to the investor-owned utilities, resource adequacy will also have an impact on Mr. Fraser's community, which is about 30 percent of the market in California. And, there is an additional group of load serving entities that are neither municipal utilities nor publicly regulated utilities. These are load serving entities servicing the retail market.

So how to pull this all together I personally believe that the connective tissue is the ISO tariff. So basically we determine how much can be determined by the State of California and the municipal utilities that they have to respond to, who provides it is obviously an open question. But more importantly, how it's ultimately enforced is going to be through an ISO tariff and ultimately I think through Commissioner Wood's Commission.

Mr. ACKERMAN. Mr. Chairman, I think you're looking at part of the problem. The whole problem also includes aged power plants in the State of California which could be shut down and a lot quicker if they don't see the kinds of markets that would facilitate being used at all. So we have to look not only at the new construction which might not take place, because the certainty isn't there, but the additional megawatts that might be taken off the table because people are looking at the costs of continuing to run those power plants and saying, the economics aren't there, putting more pressure on the supply demand imbalance, if you wish to call it that.

Mr. OSE. You've identified two questions. There's the capital necessary to keep existing plants running on a maintenance and repair basis.

Mr. ACKERMAN. That's right.

Mr. OSE. Then there's a second question having to do with creating, generating power for the growth in the market.

Mr. ACKERMAN. That's right. And, we can add to make it complicated a third element, which is new transmission facility. I'll give you a specific example. Let's take the generation that's being

built in Arizona and along the Mexican border. It doesn't have enough transmission to get in to help serve the needs of California and the Pacific Northwest.

So we have inadequate transmission to bring some of this currently stranded new-asset power into the State of California and the Pacific Northwest. There's the chance that we might lose some existing power plants, because they can't sustain themselves and add new environmental requirements in order to keep producing power.

And, then of course, we have the fear of new generation not being built because they don't have the market certainty. Other than that, things are going pretty well.

Mr. OSE. You're an optimist.

Mr. Winter, it seems to me that we've got enough power for this summer. But I am not very optimistic about the out years, if you will, 2 or 3 or 4 years downstream, as it relates to any potential shortages or significantly higher prices. Now, I know ISO is working on a report to forecast power supplies for this summer and the near future, which seems to be prudent, and I want to compliment you on that. Do you have anything you can share with us to summarize what appears to be the case, both in the immediate term and in the near term beyond that as it relates to power supplies for California?

Mr. WINTER. I have the advantage of having the draft report that you're referring to. It's 3,246 megawatts that we have "in excess" of the identified needs. That would portray that for the summer of 2004, we would have adequate power.

Now, I always qualify that with, if I lose a couple of nuclear units, suddenly some transmission lines are down, or if we have a situation where there's a local hot spot that we just don't have sufficient transmission to serve it, that we of course would have to take whatever action was necessary for those. But for that period of this summer, it looks like we will be able to make it.

That also takes into account a reduced import from the Northwest. During the summer, we usually see somewhere between 5,000 and 6,000. In our studies we have projected only 3,500, because we expect the Northwest to be somewhat drier. My understanding in talking to them last week was that they have a very good March as far as snow and rain is concerned, but we don't know what the impact of that will be.

Looking beyond that, I have considerable concerns, many of the things people have mentioned here. We have old plants, many of them are under a requirement to add significant capital, to add SCRs or catalytic converter type things to clean up the air. People are just not going to make that investment unless they know they've got a market that they can play in.

The other is that we have many old units. The other thing that I am seeing that, one of the advantages of being rather old is, you see things tend to repeat themselves quite a bit. And, I am seeing the utilities now getting caught up in the economy is down, the load is not growing as it has in the past. And, my experience in the utility was, we were very, very good at predicting nice, steady growth or nice, steady leveling off. But we could never quite hit it

right when things either started growing fast or they started going down.

I see this trend to try and lower things because of the economy. If our economy turns around, especially with the activities we have in Silicon Valley, where so many of them have reduced their consumption, they can add that back in literally months. And then, I think we are going to very quickly get into a concern.

My guess is that if things go normally, the economy doesn't rapidly recover, we are probably good until 2006, 2007. If things don't go well or if they go well and the economy picks up but we have less additions and there's no more added generation, I think as early as 2005 we could be getting back into a problem. And, if bad weather in 2004, we could get into trouble.

So I know that's not a clear answer, but forecasting load is not a real science. My feeling is, we need more generation. But even more than that, we need some transmission. And, one of the things that George said that troubles me a little bit, mainly because maybe I don't understand it, was the identification that the MD02 design was not friendly to bilateral. I think what he's referring to is that, the design does not guarantee, if you will, transmission for bilateral contracts. And, I would certainly agree with that. But as far as bilaterals, with the design, bilaterals are done completely outside the market and are just a way of getting resources in.

So now we get to the point of do we have sufficient transmission. And, the answer to that is clearly no. But that's not a market design that can provide that. That's something that we've got to sit down, and while MD02 tries to indicate, through the nodal identification of constraints and power costs that you need a transmission line, I don't think it will ever be sufficient to be the total driver for the addition of transmission.

So while MD02 is a portion of it, there's all kinds of other parts of the procurement of power, the addition of transmission, the building and adequacy of the generation, demand side, distributive generation, that all has to be pulled together. I feel MD02 gives us a basis to work on those. But it by itself cannot solve all the problems.

Mr. OSE. So you have a draft report that indicates using what I would describe as conservative assumptions from power transfers from the Pacific Northwest, that in the summer of 2003 we have 3,200 more megawatts available under "normal circumstances" than we have demand for?

Mr. WINTER. Correct.

Mr. OSE. Which is about 6 or 7 percent of the total market?

Mr. WINTER. Right. But now realizing that I've already added my reserves, which are 6 to 7 percent, so if you put those together, you're about the 12 percent that I've talked about. But next year, if load growth occurs and we don't have any new generation, which I am not seeing being built in California, then I think we start cutting into that 6 percent very rapidly.

Mr. OSE. So if the total, I just want to make sure I understand this from a generic standpoint, if the total market is around, let's say, 50,000, total market load is 50,000 including the reserves 6 or 7 percent, you've actually got around 53,000 megawatts available

against a market demand of around 47,000. Those aren't the exact numbers, I know that, but I am trying to get it clear it my head.

Mr. WINTER. Right.

Mr. OSE. And then, you've accounted in your out years using some assumptions that we will be short in 2005 or 2006, again depending on how fast the economy grows and whether something goes down and what have you. But in any case, it's not a particularly optimistic scenario.

Mr. WINTER. And again, that's not our study. We look at the short term. But that was just my feelings based on the experience I've had in utilities.

Mr. OSE. Well, I came to Congress from business, so the economy is at the heart of what I pay attention to. I want the economy to come back. Trust me, I want it to be just percolating like crazy. If my objective and that of so many of my colleagues here is achieved, that is, if we get economic growth of 2.8 or 2.9 or 3 percent per year, what I hear you saying is that we are going to be in a box, so to speak.

Mr. WINTER. I would certainly concur.

Mr. OSE. OK. That's kind of where I am at. That's one of the reasons I want to get the design done. I want to get these things aligned and in place and moving.

Mr. Winter, you and I have had this discussion about whether or not the CAISO is independent. We are not going to rehash that today. I do want to talk a little bit about the stakeholder process, whether or not the people, for instance, sitting between Mr. Wood and Mr. Fraser have been part and parcel of the deliberations that CAISO is undertaking. For the stakeholders, let me just make sure I've got it correct. Are you guys being consulted with relative to the design of MD02? Is that consultation taking place on a satisfactory level?

Mr. ACKERMAN. I don't think that my members would agree that consultation is taking place. There's an education process that's going on, whereby the ISO staff educates the market participants, who I represent, and Jan represents as well, as to what the ISO is thinking. We have some limited amount of input. It has not been the feeling expressed to me by my members that they are part and parcel, they are somehow partners in terms of designing this marketplace as it was once upon a time, let's say, back in 1997 or 1998.

Mr. FRASER. I would agree with that. I would support what he said. To illustrate that, I believe there's an RFP out for software to basically run the MD02 system put out before our input has been entirely included in the design process.

Mr. OSE. Mr. Smutny-Jones.

Mr. SMUTNY-JONES. I think that there is a great deal of concern of how well the stakeholder process has been working. I would concur with what Mr. Ackerman suggested with respect to, it's more educational than anything else. We have put together, with some other parties, a formal stakeholder advisory committee proposal to the ISO and ISO board for their consideration. That is crafted along the lines of other stakeholder advisory committees that currently exists in other successful markets, like PJM, for example, where there's a much more, a process we believe takes input from the marketplace.

We think this is important for a couple different reasons. One is obviously getting input from people who are affected by the market, I think, is a positive thing. Two is, it does reduce the amount of things we ultimately then need to litigate before Chairman Wood's commission. If we can resolve these things in California before they get to Washington, we can save an awful lot of time and a lot of money. So we basically believe there needs to be stakeholder reform in California.

Mr. OSE. Mr. Winter and Mr. Wood, I direct this question at you. The stakeholders are saying they'd like to have some direct line of input into this process that's formal in nature, with voting and all this other stuff. What's your reaction? Mr. Winter first, apparently it doesn't exist now to their satisfaction? Is there another view to this?

Mr. WINTER. Well, certainly I have another view. Not to debate what they have said, because what your customers, all of them say is reality, whether you feel it's the truth or not. I guess after probably 5 years of sitting through more meetings than you can ever imagine with input from everybody I can also imagine, having agreements then filing your filing and having people contest it at FERC anyway because your decision was not to agree with them, has kind of left me a little bit less than willing to accept that we didn't have a process. I forget how many hundreds of meetings, how many manhours we've spent trying to bring people along.

I think it is a fair criticism that after input for a couple of years we move forward. But trying, and this is what I am going to pass to Pat a little bit, because during the summer of 2002, we were concerned about this very fact. Because we had put together the design, we had modified it constantly with people's input, we had tried to go to chat rooms, we had tried to do everything we could to get information from folks. Finally, somewhat in frustration, we asked FERC to come out and hold some technical working conferences on MD02, so that if for no other reason, they could see that we at least had tried to get the input in some rational way.

They held those meetings, I guess, Pat, I don't think they were all that successful, but nonetheless, we had them and got input. And, so we have moved forward.

Now, let me also address the problem, if the example is that you've gone out for an RFP, let me tell you that four Senators from California sent me a letter and said, you will not move forward on——

Mr. OSE. California has four Senators?

Mr. WINTER. Well, four of them that sent me a letter. The State, they have—it feels like 100. But nonetheless, they had requested us not to go forward until we had done an LMP study.

We sat down with representatives of those folks and clearly laid out that the reason we needed to go forward was to keep things on schedule, and that we needed input from the designers of the system to No. 1, give us schedules, No. 2, give us alternatives that we could put into the design so that we could determine whether or not we could accommodate many of the things that people were asking us to do.

So we proceeded with that. Nothing is cast in concrete. The board has committed to the State Senators that they in fact will not go forward until we have reviewed all the issues.

So I guess I feel we've made quite an effort to do it. You're never perfect on getting everything to everybody's satisfaction. But the idea to slow down, slow down, kind of disturbs me, because most of the things we are doing are either in place in other ISOs and where markets are well running, and certainly I think there are some issues around FTRs or CRRs as to how we are going to allocate transmission. But one of our major problems is, we don't have adequate transmission and we've got to come up with a way to allocate that to people and some of them have existing contract rights, which we have to carve out and protect.

So we are where we are, and we are trying to do the best we can to get that input. We are modifying the design every day as people come in. We just spent 4 days or 3 days last week walking everybody through every step of the process of the design and how it's going to work, so that they could give us input.

Mr. OSE. Commissioner Wood, how valuable is the stakeholder process that you utilize over at FERC? I don't know if it's institutionalized or otherwise.

Mr. WOOD. We certainly, in setting up all the other markets, and just to take an example, one that's going on right now in the Southeastern United States, have a formal stakeholder committee, which is not just everybody showing up in a room with their designated representatives from each kind of constituent group who comprise the committee. So it is a manageable, diverse group that does not, is not mandated to agree on everything, but is mandated to get to, as close to consensus solutions on major issues as you can get.

It is very valuable. It ultimately goes through the ISO board up to the Commission. It's very valuable to know that a proposal has been vetted through the stakeholder process. Those stakeholders do have the right, which you can't deprive them of, to directly address FERC on their concerns about the ISO solution. I don't think that anything would ever really change that. But certainly folks in my position, including me, do look at whether a process has been, or a new procedure has been vetted through a stakeholder process. I think these are too important not to do that.

But on the other hand, an independent view has to be looked at as well. That's why we do value an independent board's review of what stakeholders come up with, to make sure that it not only advantages stakeholders, but ultimately is good for the public, it is good for the broad industry. And, there will be at times proposals that can make it through a stakeholder process that are not in the best interest of the public. And, we've got to always be able to say no to the stakeholder process. But that's what I think Terry and his folks are going through. It's probably the most difficult place in the country to do a multilateral negotiation on issues related to electricity that I could ever imagine. So I don't know that it's a necessarily textbook example.

Mr. OSE. All right. I want to move on to the seams issues here. We have 11 different States, we have Canada, we have Mexico, we have plans to generate in each of these 11 States. We have trans-

mission lines, we get a lot of power from Power X. We have facilities south of our border with Mexico that are under construction, if not already producing. And, the sum of that is that on any given day, we may import a significant amount of power from outside the State and then on any given day, when we have surplus, we may export power outside the State.

The issue here is how do the market places interact with each other? In other words, if the rules in one area are different than the rules in another, how do you stitch them together? That's that seam between the issues. Now, Mr. Winter, in your testimony, you talk about a working group, the SSIWG. I can't remember what the acronym is. Seam Steering something or another Dash Working Group. And, you talk about how they interact.

My concern is that we don't create a market design in California that makes it impossible to import from other areas or export when we have surplus. So what are the leading concerns on that particular aspect that you're dealing with?

Mr. WINTER. Well, I think first off that group has been tremendously successful in at least identifying the problems. It's one of the reasons that we tend to support FERC's SMD as it makes these different issues, somewhat gives you a framework to work off of.

I would say probably the No. 1 contention is going to be how are you going to handle congestion, management of the transmission system. We've chosen locational marginal pricing because it has worked in the Northeast and PJM and New York models. I don't think that the others are quite there yet. But at least we are talking to them about it.

I think a bigger concern oftentimes that I have is, I think there will be ways to work out the market issues. But some of the timing issues around the real time operation get to be major. In other words, if one market is accepting changes and bids up to 20 minutes before they dispatch the power——

Mr. OSE. As opposed to 10 minutes.

Mr. WINTER. Right, as opposed to 10 minutes or 5 minutes or wherever we get, those are the kinds of issues that have to be resolved in the design phase, so that the operators don't have to try and deal with that in real time.

So you know, I can't list all the things they've gone through, because they've been going through an evolutionary process of whether they're going to use flow gates or they're going to use LMP or they're going to use zonal or how they're going to divide their markets up. I think the main thing California has to do is stay flexible so that we can accommodate most of those. I think if we get the operational time lines, then we can work out the others as long as there's transmission capacity to bring the power in. That's a real time, every 10 minute issue of whether or not you have sufficient transmission to get the power in.

Mr. OSE. Do you think you can handle this through agency action, or do you need direct legislation?

Mr. WINTER. My 'druthers is, I don't like to push anybody into joining the ISO or having to live with the market. So one of the things we have done a tremendous amount of is trying to make it flexible enough to accommodate everyone. On the municipal side, we've developed what we call metered subsystems that allow them

to operate their systems pretty much away from what the ISO does and what the markets do. I think we would offer the same type of opportunities to the regions outside.

Mr. OSE. This brings me to one of the things as a consumer that I am most interested in seeing effectively implemented. And, that is when you get to this interaction or this interface between, if you will, the RTOs from different geographic areas, how do you ensure that the behavior at that point of interface is properly occurring? In other words, do you need a market wide monitor, so to speak?

Mr. WINTER. Yes. Clearly one of the things at the ISO, we identified many of the gaming activities that were going on inside our borders and we could suspect them on the outside. But once you went outside the State, we really couldn't determine whether someone was behaving according to the rules or not. So I clearly support the FERC's West-wide market monitoring activities.

I would say that I think there is a need for the local monitors also because they're sitting there, right there watching the market every day, move up and down. Therefore, they can identify problems more quickly than somebody at a regional area who has to then monitor the interfaces and may not see the data for several days or even weeks.

Mr. OSE. Mr. Wood, if I understand this particular concept, FERC would be the agency to whom this independent market monitor would report?

Mr. WOOD. Correct.

Mr. OSE. And, the tool that they would use perhaps would be the, either the reports from the field, from these people deployed into the different markets, or the data gathering machinery or equipment you have over at the headquarters?

Mr. WOOD. Or their own independent analysis. They could depend on the folks that work at Terry's shop or in the Northwest or in the desert Southwest. Again, we are pretty flexible in how the different regions want to set up the market monitoring function. But we do require that there be a component of it that answers directly to us that's not responsible to Terry to tell him he's doing good, but could actually talk directly to us and also to the appropriate State regulatory authority at the same time. They could use a variety of tools, ours, theirs, and a third set, their own.

Mr. OSE. Ms. Tomcala, in the context of an IOU, whether it be you or San Diego Gas and Electric or Southern California Edison, is a West-wide market monitor a necessary component of making these different RTOs operate efficiently?

Ms. TOMCALA. Absolutely.

Mr. OSE. So just from an industry perspective, obviously you're not speaking for anybody other than perhaps PG&E, you would support having an independent market monitor to govern, if you will, the interactions?

Ms. TOMCALA. Yes. And, we have supported that in written comments to the FERC, both associated with Order 2000 a couple of years ago and associated with the SMD proceeding.

Mr. OSE. Mr. Ackerman, do you share that opinion?

Mr. ACKERMAN. Yes, we do. The three most important points that have to be done on a regional analysis, and I just want to emphasize that the members of my group are of course trading across

all the Western States, not just in California, is resource adequacy, which we've talked about a little bit. That's the bean counting function—do we have enough supply in order to meet demand under various conditions?

Second is market monitoring, which you're asking about right now, we do need a West-wide monitor. We want to have it under an apolitical, to the extent that's possible, an apolitical umbrella so we don't feel as we do today that what occurs in California is under the guise and under the direction of an ISO governing board that's quite biased, quite biased against us.

And, finally, congestion management of the transmission system. Those are the three most important things.

And, I'll reserve specific recommendations after that.

Mr. OSE. Mr. Smutny-Jones.

Mr. SMUTNY-JONES. Yes, we obviously believe that there needs to be regional market roles. I'll even go one step further. I am not necessarily advocating an ISO amongst the entire Western United States, but there needs to be basic rules that are understood on a regional basis. It's important that it not only be monitored regionally but also enforced regionally. And, I think here's an area that probably requires some further exploration, given the fact that this is interstate commerce and you do have different States that have obviously very different views on how this might work.

But we are very supportive of the concept that if, you know, we have a regional market, an interstate market, and those rules need to be both monitored and enforced by a regional market monitor.

Mr. OSE. Mr. Fraser, what's your input on this?

Mr. FRASER. I totally agree. We both purchase in the Northwest and Southwest and sell into both markets, and have the same concern that we not get way out in front of the designs in those other areas, so that we move ahead in concert with them, rather than way ahead of them.

Mr. OSE. Anybody else want to offer? Mr. Winter. Ms. Tomcala.

Mr. ACKERMAN. Could I just add one thing? Chairman Wood reminded me of one element that's also important on a regional basis, which is transmission planning. I was thinking it, but I didn't say it. So add that to the list. That would make four essential elements.

Mr. OSE. Just a moment here. Mr. Winter, you brought up the issue of local market power. What I believe you were attempting to convey is concern about the ability of a sole source to control pricing and availability and the like under a certain set of circumstances where transmission into an area may go down and the like, so that there is no alternative means of providing power.

You said something that I don't quite understand. You stated that there was a need for additional mitigation measures for plants that have local market power. The question I have is that under a normally functioning market, the competitors for that particular producer would move into that market and attempt to sell or create power generation. And, it would seem to me that at least under a pure theory of markets, putting artificial constraints on local market power would serve as an adverse incentive to bringing that power in.

Can you reconcile that?

Mr. WINTER. Clearly it is going to put the impact of not wanting people to generate or build new generation in that area. On the other hand, no one is going to build a new generator if in fact the line outage is for 2 weeks during the year and that's the only time you need to mitigate it.

So if you have a generator who is located in a very isolated spot, you have two transmission lines going into the area, one of them goes out, therefore you can't get any power from outside the area, the only guy you can call on is the guy located right in the area. He has no restraint on his prices now.

Mr. OSE. So how would you deal with that?

Mr. WINTER. Well, the way I would deal with it is as much the method that PJM has of dealing with it. What they do is they have established a price that the generator is entitled to. If something happens to the system so that they clearly have market power and the prices start going up, they just mandate that the person operates at that cost.

Mr. OSE. Mr. Wood, under a scenario like that, how do you ever bring new generation to that marketplace? Who would ever put their capital at risk?

Mr. WOOD. It would be difficult if that were the only tool. One that the New England market redesign has proposed is to let, local pockets happen. They just do, because you've got industry that for 100 years was encouraged to be concentrated. So now we are trying to disaggregate it to get competition to work. So it may be transitional, you know, a couple of years to get transmission built or until you sell generation plants to various companies, so there are competitive forces at work.

But I think of southwestern Connecticut as kind of that constrained example. Probably the north peninsula in San Francisco down to probably Palo Alto area, is similarly constrained. What they have proposed in New England, and just adopted in March, was to set the price cap, basically, at the cost of what a new entrant would charge to recover his costs fully. So that could in fact be higher than the formula Terry was just talking about.

But it is one that I think we've heard from both generators and regulators and customer groups alike, that seems to probably hit the right balance. Because I think everybody recognizes that local market power exists and really can't run unabated. But the really bigger debate at our level so far has been, so what's the right way to address that local market power. Do you do it through a cost plus formula or through a proxy for the new power plant, what he would cost to enter into the market.

Mr. OSE. Ms. Tomcala, how does PG&E deal with situations of this nature?

Ms. TOMCALA. Well, in the past we've had RMR contracts to deal with this. Going forward——

Mr. OSE. Share with us——

Ms. TOMCALA. I am sorry. Reliability Must Run contracts, we use the acronym so often it's hard to get out of them. There are mixed reviews about how well that has worked in the past and whether that approach fits in with a fully competitive market going forward. So we have some proposals at the ISO through the MD02 process that we are addressing as possible alternatives for RMR.

Mr. OSE. And, those would be coming out of the deliberative process some time after November?

Mr. WINTER. Good question. I am not familiar with exactly what proposal she's talking about. But clearly it would have to be coordinated with the November procurement and whatever the State came up as the requirements.

She mentions RMR, and I think that's a perfect example, where you just can't look at the cost of generation, because in the example I gave, you could build a third transmission line, and that may be the least expensive alternative. So all these have to be coordinated. I am sorry, I don't know exactly what her proposal was in the program.

Mr. OSE. Mr. Ackerman, how would your members react to this kind of thing?

Mr. ACKERMAN. Well, they agree that it's a thorny problem in terms of identifying where market power exists and how to mitigate it. But here's what's really far more scary. When I was at the 4-day MD02 workshops ISO conducted last week, the scary part was, they said, we are going to apply this mitigation measure for local market power everywhere except for points where power comes into the State and interconnects with the ISO and in the middle of the State, where we have Path 15, that's south of your district, and south of that, Path 26.

But everywhere else, the ISO will assume that local market power exists and we are going to apply these market mitigation rules. So your supposition is absolutely correct. Why would anybody invest in an area where we have this difficult load pocket to deal with, but now apply it to a much broader area, that includes the whole Bay area, Humboldt County, Round Mountain, Los Angeles, San Diego, the eastern part of California and on and on. And, they are going to start there because the ISO doesn't believe that there's sufficiently competitive markets in order to take off these "mitigation" shackles, as it were. So people are not going to invest.

And, when we get into the definition of partnering with the ISO to say, well, where do we start solving this problem, I think the first question is where do these problems truly exist? We will have to come to some compromise solution.

Mr. OSE. Well, let me flip it around on you. There's a price cap of $250, if I understand it. Are you saying that $250 is not a sufficiently high price for a power generator to come in and build a plant?

Mr. ACKERMAN. I would say for a power plant that only intends to operate 1,000 hours or less a year, $250 is nowhere near enough.

Mr. OSE. To cover that gap?

Mr. ACKERMAN. To cover that gap. Now, we are not talking about a cap of $250 when we talk about local market power mitigation. We really don't know what number it might be. There's no dollar number floating out there. But I'm darned sure it's less than $250/mwh. We wouldn't be spending time talking about this topic if it weren't.

Mr. OSE. Mr. Smutny-Jones, any input on this?

Mr. SMUTNY-JONES. Well, it's certainly not a new problem. Obviously it's being handled elsewhere. I think the Northeastern approach actually is a variation on something that was looked at in

California a while back to deal with San Francisco, because San Francisco is a load constrained area. At the time we were looking at a, I guess it was a bid cap at a level of the new entrant or the closest adjacent competitive, what's called a node, or substation. In other words, there may be other reasons why the prices in the market are high that have nothing to do with the location of the unit. And, the person who owns that unit shouldn't be harmed by that.

We also had a large number of RMR contracts when we first set the market up in California. And, it was a great deal of effort. We took a great deal of pride in the fact that we removed a significant amount of these RMR contracts, both in northern and southern California. So that is yet another way of dealing with this issue.

I share the concern that market power and concerns about market manipulation have sort of tainted everything. So what we are doing is, we are spending an inordinate amount of time focused just on market power and not on designing a market that I think Commissioner Wood talked about, or Chairman Wood talked about earlier, that if you have adequate resources, and there's real competition, the market power problem really doesn't arise.

Mr. OSE. Mr. Fraser.

Mr. FRASER. Well, I'd like to add another level of complexity to all this. I suppose one of the paradoxes in our business going back to the earlier comments about the need to have sufficient resources to meet all the load plus a 10 or 12 percent reserve, the paradox is that you have a power plant and you hope never to run it.

So you've got to, within your market design, figure out some way to accommodate that. In many cases, it might be an old plant that used to run efficiently but nowadays is held in reserve. And, ideally, if nothing goes wrong, it is not run. So you've got to have a market design that would accommodate the owner of that plant, so that he or she would keep it in operation and ready to start when needed.

Just to support what Mr. Ackerman said, we have a number of combustion turbines that when things are running well, they are not operated, other than maybe 40 or 50 hours a year. In the bad old days in 2000 and 2001, they were run right up to the limit of their resource availability. But in normal years, if you look at the cost on a per kilowatt hour basis, if you judge it on per kilowatt hour, it's very high. So the capacity adequacy issue is indeed pretty complex when it's essential that we have a very reliable electric system.

Mr. OSE. I am sitting here listening, and I have to say I am somewhat confused. The argument that was just made regarding local market power would serve to protect if you will the oldest, most inefficient producers that are doing the most harm to our environment, producing the highest cost power in our marketplace. That is the net result of this particular potential policy, is that the dinosaurs of our industry end up getting protected in lieu of replacing them with far more efficient, far lower cost producers.

And, I have to sit up here balancing the different objectives we have of power for our people and capital allocation that produces plants and protecting our environment. I am sitting here scratching my head, how do you reasonably come forward with a policy, the net result of which is that we have dirtier air than we might other-

wise if we replaced that old plant with a more efficient plant in the first place? Would any of you care to comment on that? Commissioner Wood.

Mr. WOOD. I think it clearly points out the need for sufficient transmission. The best solution to a clogged up local market power plug is to have more highways into that congested area. Now, there are parts of California, as there are in any other State, that are very, very difficult to build in. So there will be places like New York City, probably like San Francisco, we've got an upper Wisconsin, southwestern Connecticut, where you've got significant environmental pushback.

And, I think what we are seeing certainly with the rate design changes that were introduced in Connecticut is, OK, then the people that live there see the price impact of those choices. So the choices to run an expensive unit and not to have transmission result in the bill not being paid by everyone in New England, but now by people in that part of Connecticut getting paid. So that's one of the harsh realities, but good realities of some of the changes in MD02, which I think Terry indicated they're able to mute. But with locational marginal pricing, we start to see the costs of these environmental choices or non-choices that then get paid by the folks who make those choices as opposed to spreading the costs to everyone else.

Mr. OSE. Well, if I understand the investor owned utility structure in California, which delivers a significant percentage of the power, those costs are aggregated and then spread to the entire ratepayer base.

Mr. WOOD. They are.

Mr. OSE. So in effect, it's——

Mr. WOOD. It's muted.

Mr. OSE. Yes.

Mr. WOOD. But nonetheless, those signals are identified so that these transmission planners and the utilities who will go fix the problem will know exactly where it is and can make the case to the PUC, who's got to prove it on need and on cost benefit, that in fact this is costing PG&E in the aggregate $80 million a year. This is a $200 million line. It pays for itself in whatever, 2½ years. That's something that a regulator can say, yes, hard as it is to site, it's worth doing.

Mr. OSE. I have to tell you, this is an amazing argument, but I find myself beginning to subscribe to this issue of environmental justice. Because what you're laying out is someone who makes a conscious decision to not build transmission and not build generation for whatever reason, basically shifting the responsibility to somebody else accordingly. And, I can't see that's very good policy.

Mr. WOOD. Plus the environmental point.

Mr. OSE. Plus the impact. I mean, my air quality is bad so somebody else doesn't have that issue.

Mr. Ackerman.

Mr. ACKERMAN. There are two other creative elements that would allow people in a load pocket to reduce demand. One is demand bidding, of course, which allows large users of energy to every day, maybe even every hour, to enter bids as to how much

they would be willing to be paid in order to shut down operations. And, the other one is real-time pricing.

But here's the problem. Jurisdictionally, those items are on the State side of the line, not on the Federal side of the line. It becomes somewhat messy in terms of how to coordinate those two sides so that you have a coherent policy. It's not possible for FERC, for example, to go to a State and say, you know, you really ought to be doing demand-side bidding. Although they can give it lip service, and they have in many of their polices and many of their orders. But they can't go all the way. The States must pick up the slack.

Mr. OSE. And, Mr. Winter, in your testimony, you talked about some of these permutations, if you will, on the demand-side. Are these part and parcel of the design that you're talking about?

Mr. WINTER. That is certainly one of the ways of meeting your capacity requirements. So if the State decides that they want to identify demand-side reduction, let's just take San Francisco, for example, because that is, as Pat Wood said, a constrained area. So if you look at that particular area, in regard to being constrained, and I am sorry, what was the question? I lost you.

Mr. OSE. Whether or not these demand-side reduction provisions are part of the market design discussion.

Mr. WINTER. Right. They are not part of the design, but they would meet the requirement. And, at such time as those particular areas became constrained, then they would use the demand reduction to allow the sufficient generation to get into the area.

Mr. OSE. I believe you just told me it's one of the tools that would be available.

Mr. WINTER. Correct. But not through the design itself. It just has to be, everybody keeps saying, put that in the design. I think they're talking more broadly of the design of how energy is going to be provided in the State as opposed to MD02, which is really the design of how the market would work.

Mr. OSE. All right. Mr. Smutny-Jones, do you want to add anything on this, on local market power?

Mr. SMUTNY-JONES. Only to emphasize that we do share your observation and concern with respect that the cure is worse than the disease here. In using San Francisco, not just to pick on them because I am from Sacramento, but there is a significant constraint there, we've debated this now for 6, 7 years. It seems to me that we can resolve this. If you set your price gap but also allow people to bid into the closest competitive node, you need an LMP to do this. Then you remove the problem that I think you're observing, which is you're not giving people any incentive to basically build there.

I also think it does in fact send signals to policymakers, even if you peanut butter as they say, the rate impact of this. It does give the utility and the policymakers real information in terms of what it's really costing to serve a particular area. That is absent right now.

Mr. OSE. Mr. Fraser, any input?

Mr. FRASER. No, thank you, Mr. Chairman.

Mr. OSE. My last question here, I am concerned about the market design being such as to prevent the gaming that occurred such

as Death Star and Fat Boy and all the others that have gotten such play in the modern lexicon. Mr. Ackerman, how do we embed in market design the structures that prevent that kind of gamesmanship?

Mr. ACKERMAN. I think that moving to a system that's been given the initials of "LMP," which means the locational marginal pricing, goes a big step toward preventing the type of gaming you saw previously. And, I don't want to go into so many details that I lose the point here.

I think that the Market Design 2002 is heading toward several positive charges; one of them being locational marginal pricing, another trying to specify how they're going to mitigate prices globally, and third, how they're going to mitigate prices on a local basis. Those three things alone will do a lot to remove the worry that I think consumers should have that they're being subject to the kinds of games that were identified in previous hearings in the State of California and many, many other reports.

But to answer your question more broadly, I believe the whole industry has matured, because we've been exposed in the public light. There's a lot of public anger about what has occurred. With MD02 or without MD02, trading is not going to look like it was before.

So I wouldn't rest upon MD02 to solve all the problems and assure people that everything is going to work cleanly. If there is a charge, it comes right down to the individuals who are making decisions on the trade floors. How are they going to make those decisions? I think now they understand that what they do, what they say and who they report to has the light of public review. I don't think anybody ever considered that or dreamed it, way back when.

Mr. OSE. Commissioner Wood, same question. How do you use MD02 to prevent market manipulation in the future? What specific tools need to be in it?

Mr. WOOD. I think it was the most clear consensus item I heard from my fellow panelists here today, is get that resource adequacy requirement in place as soon as possible. I heard that from the folks who would build and trade, from the man who operates the grid, from the utility that both public and private view, have customers and who also have generation. I think it is the cleanest way to hop over all the noise about the California being a bad place to build, etc.

If you have customers who have authority and ability to pay, which is an important issue with the large IOUs, certainly, to be dealt with hopefully soon, then all the rest of this work, the ability to manipulate again is exacerbated when you have insufficient supply and I think the market rules, certainly I can't pass that up. We clearly have to get congestion allocated in a better way. The price signal is being sent to not only builders of power plants, but to customers and to transmission builders about where investment is needed.

But clearly steps to keep the supply bubble ahead of that kind of tight level that Terry laid out for 2004. That's not just jump up and down kind of news for me. Any steps that can be taken in the very near future to send that buy-ahead signal to developers of all

sorts, to come into California and start building again, would be very welcome.

Mr. OSE. Mr. Winter, how do you use Market Design 2002 to prevent the manipulation?

Mr. WINTER. First off, I agree both with Pat and Gary. Clearly if you have plenty of resources there, people don't do things that they normally do. On the other hand, I don't think any generator is going to build based on his ability to try to game the market, if you will. And, clearly, the LMP allows me as the operator to quickly identify the problem and get right on it.

Because the dilemma we had with the old design was that people could actually in the day ahead congest lines. Then, when we got to real time, I had to solve it because the models didn't tell me that it was congested until I got to real time and saw the line overloaded. Then I had to take action. And, it was just a beautiful opportunity to game things by scheduling loads such as to cause congestion.

So I think that will help. Clearly, getting more generation and transmission, it isn't just generation, because right now I sit with power in Northern Mexico and power in southern Arizona, and because of transmission constraints, I can't get it in. I've got to have a way to increase that capacity and make it available.

And, I look at the transmission system as an enabler for the markets, and it's really a rather small percentage of the cost of energy. Therefore, let's try and get some lines built that will relieve it, then you allow the generator to build in more places he would like to where he's got water, transmission service, etc. And, then, we can move forward. But if we keep constraining it, even if you build all the generation in the world, if I can't get it to the load, it doesn't do me much good.

Mr. OSE. Ms. Tomcala.

Ms. TOMCALA. Yes, we can all agree, I think, on this area, and that's a nice thing. Adequate resources, clear rules, independent region-wide monitoring, and the ISO has done some things already in the MD02 process in conjunction with FERC that help. There are some screens in place now, an impact screen, a conduct screen, and a reference price, all of which give the monitor something to look at, to give a quick check to see if everything's in place or if there's a problem. And then, FERC's ability to act when they do see a problem coming out of those screens.

Mr. OSE. Mr. Fraser.

Mr. FRASER. I couldn't agree more. Resource adequacy has got to come first, I think I made those comments earlier. Particularly transmission, and I think you've got to look at transmission a little bit different from the traditional least cost planning, and view it from a strategic point of view that transmission brings more than just the cost in the cost benefit analysis. It brings reliability as we've discussed, it's a very effective tool in mitigating gaming, and certainly not the least of which it facilitates inter-regional transfers, particularly in the West, where we have major temperature differences between California and the Northwest that we at the NCPA have taken advantage of for some 15 years.

Mr. OSE. Mr. Smutny-Jones.

Mr. SMUTNY-JONES. I think what the other speakers are saying is very similar to my observations here. I think it's important that we learn lessons from what happened in California but we don't learn the wrong lessons. Unfortunately, there's a lot of people who I will call neo-monopolists that sort of want to go back to some other model that frankly didn't work all that well either. I think as we move forward, the market redesign that's being proposed here needs to parallel other markets that we have real world experience in. And, I think we are almost there.

But that real world experience is based on using the LMP, which does have a very high level of transparency associated with it. I think all the people on the panel have indicated a set of regional rules that are monitored and enforced regionally that basically, whether you call it megawatt laundering or arbitrage or ricochet or whatever, the rules are the same in Sacramento as they are in Portland as they are in Phoenix, people will behave according to those rules.

So we need to basically, I think, move in that direction so we actually do have, that we do in fact learn from what happened in California and we do not have a repeat of that in 2005 and 2006.

Mr. OSE. I want to thank you all for coming today. This has been educational, to say the least. I am not particularly comforted by what we talked about relative to the current market design that exists in California. I still happen to think we can do better. I think the current design leaves us vulnerable to manipulation. And, I am not convinced that we as a State, that is California, have yet to address the fundamental flaws in its market.

I don't believe we are done with this situation. I don't think we are going to have rosy markets forever. I think we've got maybe a year to get this thing under control before we have another crisis. Frankly, I don't think we can afford to let that happen. To the extent that, Mr. Winter, you can expedite the market design and the rest can provide input to get us to closure on that, I think that's a critical piece of the pie here, to getting the California market fixed.

Absent a fix, we are not going to have any investment, whether it be generation or transmission, whether it be public or private, whether it be munis or utilities or third party merchant generators. We'll be stuck with old plants at high cost and high pollution and that's not a future that I really want to have come to pass.

This Member of Congress is going to stay focused on this. You have a basic piece of the economic puzzle that you're working with. My objective is to get lower prices for ratepayers and have it delivered in a fashion that allows people to have power when they turn on the switch and clean air when they want to breathe. I hope CAISO's Market Design 2002 works out. I am here to tell you I am going to be watching, and if necessary, we will have you all back here again, because I know you enjoy it.

Thank you all for coming. I appreciate it. This hearing is adjourned.

[Whereupon, at 4:54 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Additional information submitted for the hearing record follows:]

TOM DAVIS, VIRGINIA
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MINORITY MEMBER

ONE HUNDRED EIGHTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM
2157 RAYBURN HOUSE OFFICE BUILDING
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Majority (202) 225-5074
Minority (202) 225-5051

February 27, 2003

The Honorable Pat Wood
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Chairman Wood:

I am writing regarding the Federal Energy Regulatory Commission's (FERC's) refund proceedings (Docket No. EL00-95-045) resulting from the California energy crisis.

The detrimental effects of the California energy crisis of 2000-2001 continue to plague the State of California. While wholesale electricity prices are low, the energy market continues to suffer from serious structural flaws. The necessary growth of new power supplies is proceeding slowly due to the continuing refund proceedings at FERC, fallout from the Enron scandal, lack of creditworthiness at many energy companies, and an unstable regulatory environment in the State.

In my role as Chairman of the House Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, I have urged FERC, the California Independent Systems Operator, and other relevant parties to resolve the refund proceedings and work diligently to reform the flaws in California's energy market. I have also strongly advocated that FERC fairly and judiciously settle the refund proceedings.

I am concerned that FERC has not given itself enough time to review any new evidence that results from the 100-day discovery period, which expires on March 3, 2003. The Commission has set an arguably unrealistic deadline of March 24th to make a final ruling on the refund proceedings.

On January 31st, FERC entered into a settlement with Reliant Energy following the disclosure that Reliant deliberately withheld power from the market during two days in

June 2000. I was outraged by the tactics of Reliant traders to manipulate the California market and cause electricity prices to artificially rise. Given the enormous amount of evidence that is likely to result from the 100-day discovery period, I am skeptical that FERC can properly root out and resolve any other cases of market manipulation during the energy crisis within the deadline.

I urge FERC to carefully review all the documents presented from the California parties, even if it takes more than the three weeks, which FERC has allowed itself for this task. California needs to put the energy crisis behind it and move forward with the process of fixing the energy market and attracting new power supplies to the State. However, if the people of California perceive that FERC rushed to judgment in the refund proceedings, a cloud will continue to hang over California's energy future.

On a related matter, today, I am reintroducing the "Electric Refund Fairness Act." This legislation eliminates the 60-day delay on refund eligibility for parties who have been charged unjust and unreasonable rates. The 60-day delay in current law has potentially cost California millions of dollars in refunds. In addition, the legislation increases criminal penalties to parties who charge unjust and unreasonable rates from $5,000 to $1 million, and prison terms from 2 years to 5 years. I urge the Commission to support this legislation in order to deter future market manipulation attempts in the nation's energy markets.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural
Resources and Regulatory Affairs

cc The Honorable Tom Davis
The Honorable John Tierney

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

April 8, 2003

The Honorable Doug Ose
Chairman
Subcommittee on Energy Policy, Natural
Resources and Regulatory Affairs
Committee on Government Reform
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of February 27, 2003. In your letter, you state that the detrimental effects of the California energy crisis of 2000-2001 continue to plague the State of California. You also state that you have urged FERC and other relevant parties to resolve the California refund proceedings and to reform the flaws in California's energy market. Moreover, you express concern that FERC has not given itself enough time to review any new evidence that results from the 100-day discovery period, which expired on March 3, 2003. You question whether FERC can properly resolve cases of market manipulation by March 24, 2003, given the amount of evidence likely to result from the 100-day discovery period. You also urge FERC to carefully review all documents presented by the California parties, even if it takes longer than March 24, 2003.

In addition, you note that you are reintroducing the "Electric Refund Fairness Act," which will eliminate the 60-day delay on refund eligibility for parties who have been charged unjust and unreasonable rates. Further, this draft legislation increases criminal penalties under Part II of the Federal Power Act from $5,000 to $1 million and prison terms from 2 years to 5 years. You urge the Commission to support this draft legislation in order to deter future market manipulation attempts in the nation's energy markets.

As you are aware, the Commission recently acted on several proceedings involving the energy crisis in 2000-2001 in California and the West, including the refund proceeding. The enclosed news releases explain the Commission's actions in this regard. Let me assure you that the Commission will carefully consider all of the evidence presented by the California parties before making further rulings and will take all appropriate actions within its statutory authority. I fully appreciate the need for both a

timely resolution of these matters and a thorough consideration of all relevant information, including the evidence submitted in March 2003. The Commission is striving to meet both of these goals.

Further, I support the provisions in the "Electric Refund Fairness Act" that you have enumerated. I have long favored an earlier refund date and increased civil and criminal penalties under Part II of the Federal Power Act. I believe that such measures will benefit energy customers by further deterring potential market manipulation. I will reiterate my position on these issues later today in testimony before the House Subcommittee on Energy Policy, Natural Resources, and Regulatory Affairs.

Your letter will be placed in the public files in Docket Nos. EL00-95-045 and EL00-98-042, which serves to alert the Commission to the concerns of interested individuals and groups. I hope this information about the Commission's actions is useful to you. If I can be of further assistance, please do not hesitate to contact me.

Best regards,

Pat Wood, III
Chairman

Enclosures

cc: The Honorable Tom Davis
The Honorable John Tierney

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

March 26, 2003

The Honorable Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources
and Regulatory Affairs
Committee on Government Reform
House of Representatives
Washington, D.C. 20515

Re: FERC's Review and Evaluation of Report by California Public Utilities Commission Regarding Blackouts Experienced in California During its Energy Crisis

Dear Mr. Chairman:

I am writing to inform you of the Commission's review and evaluation of a report issued by the California Public Utilities Commission ("CPUC") which concluded that, if certain generators had operated their available capacity, the blackouts experienced in California during its energy crisis could have been largely avoided. In conjunction with an overall review of California electricity market issues occurring during the 2000-2001 period, the Commission's staff has undertaken an analysis of the issues raised in the CPUC report. The results of the staff's review are enclosed.

While the CPUC report raised valid issues, the Commission's staff has determined that a more thorough investigation carefully considering plant specific data was required to fully evaluate the issues raised in the CPUC report. As a result, a comprehensive and time consuming study was undertaken of such data for days on which there were firm service interruptions. It must be noted that this study was limited specifically to a review of the degree to which generators held power out of the market on days of service interruptions together with any resulting impact on service continuity. The conclusions reached by the staff study are:

- The evidence does not support a finding that any of the referenced generators withheld any material amounts of available power during the six days of firm service interruptions.

- The CPUC's conclusion that, had the referenced generators provided their "available power," the majority of the service interruptions could have been avoided is not supported by the evidence.

- The CPUC's analysis is incomplete and materially overstated the amount of available power not generated by the referenced generators. Commission staff found that 87% of the power determined in the CPUC report to be available was, in fact, not available. Such unavailability was due to factors such as: outages, reliability oriented controls and directives of the California Independent System Operator, generator start-up, transmission constraints, and other constraints limiting generation.

- The aggregate amount of available power not generated on days of firm service interruptions which the Commission staff could not account for is less than the amount of load that was interrupted on those days. Thus, the available power not accounted for, if generated, would not have averted firm service interruptions.

Thus, Commission staff's analysis does not confirm the conclusion of the CPUC report that firm service interruptions in California during the period in question were due to the failure of the referenced generators to supply available power. However, as noted above, our staff has been undertaking a broader investigation into the behavior of the referenced generators and others in the California electricity market during 2000-2001. Staff is continuing to evaluate issues related to physical and economic withholding during the period. In fact, staff has recently submitted a letter to the referenced generators seeking additional data on withholding.

I hope you find this material useful. If I can be of any further assistance to you on this matter, please feel free to call me.

Best regards,

Pat Wood, III
Chairman

Enclosure

ONE HUNDRED EIGHTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM

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www.house.gov/reform

March 24, 2003

Dear Energy Provider:

Throughout the California energy crisis, the Federal Energy Regulatory Commission (FERC), experts from across the nation, and employees from your company or association concluded that the California energy market had fundamental structural flaws which exacerbated the crisis and led to higher consumer prices.

In its November 1, 2000, order, FERC stated, "that the electric market structure and market rules for wholesale sales of electric energy in California are seriously flawed and that these structures and rules, in conjunction with an imbalance of supply and demand, have caused … unjust and unreasonable rates for short-term energy" (FERC, November 1, 2000, Docket EL00-95-000). In the same order, FERC ordered the California Independent System Operator (CAISO) to reform its congestion management system. Due to the overwhelming demands on the CAISO during the crisis, it was unable to make the necessary reforms that California so desperately needed. However, on May 1, 2002, the CAISO filed a proposed market redesign, know as Market Design 2002, or MD'02, at FERC. The CAISO's plan proposed comprehensive changes to transmission pricing, dispatch procedures, resource adequacy requirements, price mitigation measures, congestion management and many other provisions.

The Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs held a hearing on February 22nd to review MD'02. At the time, MD'02 was still in the conceptual phase. Since that time, the CAISO and FERC have laid out more specific proposals and set a timeline for completing and implementing MD'02. In its continued oversight efforts to reform the California energy market, the Subcommittee seeks answers to the following questions:

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

2. Should the sequencing of MD'02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

3. The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

4. How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

5. Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

I would appreciate your prompt reply to these questions. If you have any questions, please contact Subcommittee Staff Director Dan Skopec at (202) 225-4407.

Sincerely,

Doug Ose
Chairman,
Subcommittee on Energy Policy,
Natural Resources and Regulatory Affairs

cc: The Honorable Tom Davis
The Honorable John Tierney

California Municipal Utilities Association

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JERRY JORDAN, Executive Director

April 3, 2003

The Honorable Doug Ose
Chairman, Government Reform Subcommittee on
Energy Policy, Natural Resources and Regulatory Affairs
2157 Rayburn House Office Building
Washington, D.C. 20515-6143

RE: California Market Design

Dear Congressman Ose:

The California Municipal Utilities Association ("CMUA") thanks you for the opportunity to respond to the important questions posed in your letter of March 24, 2003, on California market design in general, and the California Independent System Operator Corporation ("CAISO") MD02 proposals in particular.

CMUA urges a prudent approach to market redesign in California that emphasizes the fundamentals of infrastructure adequacy and stability, not theories of market operations that have not been applied before in California. Each and every proposal must be rigorously scrutinized, subject to a consumer benefit analysis, and prudently implemented. Further, information on market conditions and proposals for system design must be completely transparent to the public so that credibility and trust in market outcomes can be restored.

Fundamentally, CMUA believes that markets must evolve, not be foisted upon consumers by all-encompassing legislation or regulatory fiat. We must never again repeat our errors in California and create artificial market proposals that do not evolve from the particular needs of consumers.

1. **Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created t discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?**

One of the clear obstacles to progress in California is the lack of trust that market participants have in the CAISO. This is not a new revelation, but one clearly articulated by the Audit of the CAISO performed by the Federal Energy Regulatory Commission ("FERC") in 2001. *Operational Audit of the California Independent System Operator Corporation,* PA02-1-000 (January 25, 2002) at 10-11. This mistrust could be mitigated by a formal stakeholder process, voluntarily entered into by the CAISO, or otherwise ordered by FERC.

The lack of clear and comprehensive lines of communication between stakeholders and the CAISO thwarts progress on market reforms and erodes CAISO credibility. Therefore, CMUA agrees that a formal stakeholder process should be created. This could take the form of a Stakeholder Advisory Committee with a formal voting structure, and must include comprehensive logistical and technical support from the CAISO. Further, there must be a definitive commitment from the CAISO that explains how stakeholder recommendations will be factored into CAISO decisions. A response to stakeholder proposals such as "Thank you very much, we will take your concerns into account" simply reinforces the perception that stakeholders are spinning their wheels when dealing with the CAISO.

While the independence of the Board may be a concern, the problems at the CAISO go beyond the particular structure of the CAISO Board of Governors. Again, as the FERC Audit found, the CAISO has never refined its mission to focus on its core competencies; open access transmission service and grid operation. Further, the corporate culture is not focused on receiving the constructive input of market participants. *Operational Audit of the California Independent System Operator Corporation, Findings III17-21,* PA02-1-000 (January 25, 2002) at 11. Modifying the CAISO Board of Governors will not solve this issue of credibility without fundamental changes in corporate culture.

2. **Should the sequencing of MD'02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures of congestion management, are completed?**

Yes to all. A resource adequacy requirement is a fundamental precondition to successful market reform. In areas such as the Pennsylvania-New Jersey-Maryland Interconnection ("PJM"), formal resource adequacy requirements had been in place for years. PJM's market development simply built upon historical operation. In California exactly the opposite was true. The Obligation to Serve of the state's investor-owned utilities was eroded with no replacement resource adequacy requirement in either wholesale markets or at the state level.

A resource adequacy requirement would have several benefits. First, it would help assure reliability and avoid the severe cost of curtailments experienced in 2000-2001. Second, it would provide the incentive to build new generation because it would ensure capacity payments to suppliers. A predictable stream of revenue is the most important element to financing new construction.

Importantly, other elements of system design would change depending upon how resource adequacy is designed. Whether or not there is a "deliverability" component as part of a resource adequacy requirement, for example, affects how other system design choices are made. In PJM, Firm Transmission Rights were allocated to load based upon resource choices made by Load Serving Entities. Whether or not, and how, resource adequacy will be assured will therefore affect congestion management and the allocation of transmission rights.

Because it is the most important element of necessary to regain market stability, and because how it is accomplished will affect other elements of market design, a resource adequacy requirement should come first. It would provide a market for suppliers that does not now exist by restoring the need for Load Serving Entities to provide sufficient capacity plus reserves.

3. **The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage of discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?**

First, the most potent mitigation measure would be a supply adequacy requirement. Second, mitigation measures are necessary because California is far from having a robust competitive market, either in the aggregate or in specific locations.

While in theory inhibiting price may dampen incentives to invest in new generation, CMUA does not believe that mitigation measures as currently envisioned have an appreciable affect on investment. With respect to building of specific facilities in congested areas, these decisions are affected more by local land use, air quality, and other factors that pose obstacles to investment, than a lack of sufficient price signals. With respect to aggregate investment, mitigation measures generally allow a healthy return on investment that should not preclude development.

Local market power mitigation measures must be different, and generally more restrictive, than broader market mitigation measures. A generating unit that has locational market power may be able to exercise that power over many hours, as opposed to a relatively limited number of peak hours. On a market wide basis, you may not be too concerned if a high price that reflects scarcity is hit on a limited number of peak hours. But, that same price passed through to consumers on a 24/7 basis would be unacceptable. That problem is faced today in California, because market mitigation measures allow too high a price to be charged in certain locations without triggering mitigation.

4. **How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnection?**

It is critical, and California is in jeopardy of once again becoming an island whose markets and operational rules do not match or even approximate its neighbors. It is well known that California relies on imports to meet its load requirements. The Pacific Northwest also relies on California and Southwest generation to meet their winter peak requirements. Market participants have always taken advantage of the season diversity that exists in the West, and a market design that minimizes "seams" between regions is necessary to allow that to occur.

While Regional Transmission Organizations ("RTOs") in the Pacific Northwest and Desert Southwest are in their formative stages, it appears their proposed market rules are fundamentally different than those of the CAISO. Specifically, WestConnect in the Desert Southwest is proposing a system of physical rights to, among other things, accommodate existing uses of the system. WestConnect has termed their proposal as "RTO Lite." The CAISO's MD02 proposals allocate transmission rights using what is predominantly a financial rights model without a native load reservation. Moreover, the Electricity Title being considered by the Commerce Committee requires that native load customer transmission needs be given a priority, but then exempts the California ISO from that requirement. In other words, California's market design is being further isolated from the rest of the West.

Other differences in market rules among the possible RTOs may cause disruption. Those differences include scheduling timeframes, bidding rules for imports, and settlement periods. Each of these issues has been shown in the past to reduce market efficiencies. The different scheduling timelines between the CAISO and neighboring control areas has left transmission uncommitted, which may have cost consumers money. Both the bidding rules for imports and the settlement periods have made imports into the CAISO markets risky, and reduced imports to negligible levels for extended periods of time. This raises costs in California and also threatens reliability.

The CAISO and its counterparts in the West have discussed these "seams" issues through the Seams Steering Committee – Western Interconnection ("SSG-WI"). The specific issues raised here were tasked to the Congestion Management Working Group, whose workproduct is not due until Fourth Quarter, 2003. *Seams Steering Group – Western Interconnect, An Update, Presentation to the Federal Energy Regulatory Commission* (January 29, 2003) at 8. By that time, most key MD02 design issues will have been made. In CMUA's view, this is not real coordination.

5. **Should market monitoring and mitigation issues be decided on a regional, rather than on a California-only basis?**

Market monitoring should ideally be done on a regional basis. Our markets are clearly West-wide, as demonstrated by the recent crisis. While California lost $40 billion in two years, much of the Northwest suffered 50% rate increases. Market monitors attempting to assess congestion markets, to assess regional trading patterns, and issues of supply and demand balance, need

regional operational and bid information to make informed decisions and to craft appropriate proposals to remedy market dysfunction.

With respect to mitigation issues, the experience of 2000-2001 demonstrated conclusively that certain types of mitigation measures must be regional. California-only price caps, for example, simply provided incentives for suppliers to chase high prices in neighboring states. This created reliability and market problems for the CAISO, and provided no meaningful price relief. It was only when West-wide caps and other mitigation measures were put in place that stability was regained.

However, it is less imperative that local market power mitigation measures be developed on a regional basis. There may be detailed issues regarding local grid conditions, load patterns, and other issues that support making local market power mitigation measures closer to home.

6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

Open access transmission can increase competition, but it may not unless several other elements are also in place. No element of market design stands alone. For example, open access transmission may increase the number of competitors in markets, but that may be thwarted if pancaked transmission rates effectively limit the geographic size of markets by increasing transportation costs.

The term "open access transmission service" appears to mean different things to different people. If open access transmission means making excess transmission available (after native load requirements are met) consistent with principles of comparability to support robust bilateral wholesale markets, CMUA might agree that competition and reliability would be enhanced. However, CMUA does not believe that open access transmission, as it is currently envisioned and proposed to be implemented by Standard Market Design ("SMD"), has a positive impact on reliability. SMD appears to require a separation between the transmission provider and control area operator on the one hand, and the ownership of generation on the other. This separation is designed to remedy what is believed to be undue discrimination by control area operators. SMD therefore relies on energy bids in real time for system reliability needs. The California experience suggests that this model is less reliable than a vertically integrated control area operation in which there is predictable unit availability and no issues such as the alleged "withholding" of generation.

Again, CMUA thanks you for the opportunity to provide this input, and looks forward to any follow-up inquires you may have.

Sincerely,

Gerald Jordan

Gerald Jordan
Executive Director
California Municipal Utilities Association

CALPINE

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April 3, 2003

Honorable Doug Ose
Chairman, Subcommittee on Energy Policy
Natural Resources and Regulatory Affairs
2157 Rayburn House Office Building
Washington, DC 20515-6143

Dear Congressman Ose:

Calpine is please to respond to the questions posed in your March 24, 2003 letter. Following are the listing of your questions and Calpine's response.

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

The CAISO currently has a stakeholder process that is facilitated by its staff. The issues typically addressed by the present stakeholder process, and the priorities assigned to those issues are determined solely by the staff. The results of input sessions and stakeholder meetings are considered by the ISO in their deliberations on policy recommendations. While there is no formal voting mechanism, straw polls of the participants present at any particular meeting are presumed to yield a "sense of the group". Often, however, the lack of a voting structure and divergence of opinion among stakeholders, even within sectors, frustrates the ability to get an unambiguous indication of the level of support for any given initiative. The ad hoc nature of both the scheduling of meetings and participation therein has resulted in a frustrating, unproductive process for both the stakeholders and the ISO staff.

In order to improve the stakeholder process, Calpine recommends the formal creation of a stakeholder advisory committee (SAC) to provide advice and recommendations to the CAISO Board on matters relating to the reliable operation and planning of the CAISO-managed grid. The SAC would initially focus on MD02-related issues. The recommendations of the SAC would be non-binding upon the CAISO Board, but the formality of the structure and process would likely result in advice and counsel that the Board would deem valuable input to the decision-making process. Further, as is routine practice with other ISOs, filings containing tariff changes made by the CAISO before the FERC would include information related to the advice and recommendations received from the SAC prior to the CAISO board vote approving the filing.

The SAC should generally be structured similar to those operating in the PJM or NYISO markets.

2. Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures and congestion management, are completed?

Calpine believes that resource adequacy issues are currently the most important ones facing the California market. According to resource assessments developed by the California Energy Commission, it is expected that generation resources will be adequate to serve load for the next several years. This is due, in large part, to the construction of new plants by companies like Calpine. However, new resources will be needed sometime over the next 3-5 years, and it is important to resolve the resource adequacy issues now, because of the lead times necessary to develop, finance and construct new generation facilities. The recent Energy Action Plan developed by a consortium of state agencies calls for 1,500-2,000 MW of new generation resources to be added over the next several years, in order to maintain an adequate reserve margin.

Calpine further believes the resource adequacy issue should be resolved in close coordination with the California Public Utilities Commission (CPUC), which recently oversaw the successful implementation of a competitive solicitation process that resulted in several hundred MW's of contracts being executed. The CPUC is currently examining resource adequacy standards for the state's Investor Owned Utilities through its long-term resource planning proceeding.

3. The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the state?

The key encouragement to new generation is long-term contracts with creditworthy entities, of sufficient scope to allow a new facility to be financed. For this reason, development of a resource adequacy requirement along with appropriate implementation of a long-term resource acquisition policy is extremely important.

Current and proposed market mitigation measures discourage investment in new generation to the extent that they discourage utilities from entering into the long-term contracts necessary to finance new facilities. This could occur if there are no state and/or federal resource adequacy requirements and if the utilities know they can purchase energy in real-time at a highly mitigated

price. If the utilities know they can purchase a significant amount of energy in the real-time market at a mitigated price equal to the generator's variable cost, they will have no incentive to enter into forward contracts that provides for both the variable and fixed cost of the generation unit.

In areas where the CAISO has identified that specific generators have local market power, mitigation measures should differ from those in the rest of the state. The bid caps for local market power should only be applied during "non-competitive conditions," which must be based upon physical realities of the transmission system, not on price levels.

Market mitigation should be based upon sound economics and physical fundamentals of the electrical system. Therefore, bid caps cannot be set below what would be the competitive price outcome in a functional market. Market mitigation should not dampen correct investment signals in the marketplace. Therefore, in the absence of a market determined clearing price, the bid cap should be based upon the least cost alternative that recognizes the cost of generator entry. If bid caps are not allowed to rise to the level of the cost of entry, then the over-mitigation of price signals will not only result in discouraging access to the capital needed for new generation or transmission, but will also perpetuate the non-competitive conditions that triggered the perceived need for mitigation in the first place.

The least cost alternative could be the capital cost of a new Combustion Turbine (CT). This is proposed because a CT represents one of the most efficient capacity additions, both in regards to capital dollars and time-to-build. It is important that the mitigated unit be allowed to set and receive the LMP clearing price. Failure to do so will result in creating fictitious market outcomes that do not account for the mitigated unit.

4. How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

While it is not critical that the CAISO coordinate all of its market design efforts with surrounding states, there are a number of market structure elements that should be designed in close collaboration with key institutions in the Western Interconnection. Such coordination will ensure that California will be able to rely on resources outside the State that are accessible through competitive processes, within a broadly competitive regional day ahead market, and transported to the State via market-driven management of congestion.

Among the specific issues that need to be addressed regionally is the consistent modeling of power flows and use of transmission nomograms across the West generally, and at the Interties between control areas specifically. This is important because in order to determine the amount of transfer capability into and out of the CAISO system, assumptions need to be made regarding the status of loads, generation resources, and transmission facilities in other parts of the West. A lack of coordination with respect to the status of the various transmission systems may cause the CAISO – and corresponding systems managers in surrounding states - to be excessively

conservative in their calculation of transfer capacity, which will result in a reduced flow of energy across the region.

Another critical issue is the timing of when generation and load schedules can be changed. In the CAISO market, generation schedules cannot be changed with less than 3 hours notice. However, the rest of the Western Interconnect allows changes at least hourly. Thus, if a generation unit in the CAISO control area experiences a sudden, unexpected outage, the owner of that unit cannot look to any generation in the rest of the Western Interconnect to provide a replacement. In such a situation, the generator will have to rely on the ISO's own reserves, and be exposed to potentially high real-time replacement energy prices.

5. Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

Market monitoring and mitigation should be done on a regional basis. Calpine strongly believes that a single market monitoring institution should be established for the entire West, independent of the ISOs/RTO's management, and reporting directly to FERC.

A regional market monitor will be in a better position to observe seams issues and recommend appropriate fixes. Moreover, a market monitor that is not associated with a single RTO is likely to act more independently because, unlike the ISO/RTO, the Monitor will not also be a market participant. A West-wide market monitor would, in Calpine's view, be in a better position to assist in design and implementation of consistent market practices throughout a highly inter-dependent region. Calpine suggests further that the FERC have a permanent staff presence within the market monitoring organization, to observe and understand market activity in real time. Direct market oversight would ensure that the FERC would be in position to intervene in a timely manner in order to correct structural or behavioral flaws.

6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

Yes. An open access transmission policy increases competition in electricity markets because it provides a level playing field for all entities that seek to participate in wholesale electric markets. Non-discriminatory open access allows customers to seek the lowest cost generation. Calpine believes that a level playing field is essential for efficient new generation to compete with existing generation, and for customers to have the option of choosing generating resources on both price and quality, or to choose demand response measures. While the economics of generation will differ from region to region, competitive markets tend to select the efficient supplier, and the efficient supplier with best available technology is typically one that generates power with a combined-cycle gas-fired plant.

Letter To Congressman Ose
April 3, 2003
Page 5

The displacement of older, less efficient generation with new, efficient generation will also have a positive impact on the environment. Calpine's own research indicates that a new combined-cycle natural gas-fired power plant, when compared to the average national fleet (based on 2000 data), emits 65 percent less carbon dioxide, 98 percent less nitrogen oxide, and only trace amounts of sulfur dioxide, and no mercury.

If you have any further questions, please do not hesitate to call me at 925-479-6808.

Sincerely,

Steven Schleimer

Steven Schleimer
Director, Market and Regulatory Affairs
Calpine Corporation
Dublin, California

Shell Trading

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April 9, 2003

The Honorable Doug Ose, Chairman
Subcommittee on Energy Policy,
Natural Resources and Regulatory Affairs
2157 Rayburn House Office Building
Washington, D.C. 20515-6143

Dear Chairman Ose:

We have received your letter dated March 24, 2003 and appreciate the opportunity to respond to the questions you have raised.

Coral Power, L.L.C. is a subsidiary of Shell Trading Gas and Power Company "Shell Trading" and is an active participant in the western markets. As such, we appreciate the committee's continued efforts to reform the California energy markets.

Please find enclosed our responses to the questions raised in your letter. If I can be of further assistance, please don't hesitate to contact me. Again, we appreciate the opportunity to comment and look forward to working with you on these efforts in the future.

Sincerely,

Marcie A. Milner

Marcie A. Milner
Director, Regulatory Affairs
Shell Trading
858.526.2106

Enclosures

Coral Responses to Letter dated March 24, 2003

1. **Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?**

The lack of independence of the CAISO board is an overarching issue that affects almost every aspect of ISO operations and policy. The current board is not independent; it is composed of political appointees by the Governor and this is an obstacle to meaningful reform. Coral firmly believes that FERC should enforce its order that the CAISO replace the existing board with an independent board in conjunction with developing a stakeholder advisory committee.

Additionally, FERC staff should be present at all ISO stakeholder meetings, to help promote open and meaningfully two-way communication, and insure that the process and outcome are collaborative.

2. **Should the sequencing of MD'02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management are completed?**

Resource adequacy is a regional issue and should be viewed on a WECC wide basis. Ultimately, Coral believes that all of the market design issues should be developed on a collaborative basis involving all regional entities using a milestone approach for the region.

3. **The crisis of 2000-2001 was, at root, caused by lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?**

The California crisis was also caused by poor market design, however, as more generation has come on line in the last few years, transmission infrastructure has become a critical issue. For example, a great deal of generation has come on-line in Arizona and in the border region between California and Mexico. However, transmission bottlenecks will prevent this substantial amount of generation from getting to load thereby stranding the very resource the State needs the most.

Some short-term fixes are helpful. For example, when FERC implemented the temporary measures that allowed IOU's to include transmission upgrades to be rolled into rates, many entities took advantage of that temporary provision. Such provisions should be reviewed to determine if certain parameters should be made permanent in order to encourage new investment in the infrastructure.

With respect to market power, Coral believes that in the limited circumstances that market power exists, then yes, mitigation measures should differ from the rest of the state. Any mitigation should be market-based not cost-based however. Cost-based mitigation results in eliminating incentives for private investment.

4. **How important is it that the CAISO coordinate it's market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?**

Coral believes it is critical that the CAISO coordinate it's market design with surrounding states. We agree that current market design efforts do not give adequate consideration to surrounding states. This is ironic considering that California depends extensively on generating facilities located in other parts of the western US. With several RTOs in development, a number of seams issues should be addressed in the current MD02 process. For example, Nevada has developed trading credits for renewable energy. This type of product needs to be standardized across the Western Interconnect so that all markets can benefit from the product.

5. **Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?**

Ultimately yes, however, it's important to note that California currently operates as an electrical island due to unique regulatory and structural elements related to the ISO. There are important changes in market design and ISO operations that can be implemented on a stand-alone basis however, these should be coordinated with other regions to ensure future consistency and prevent developing more seams issues.

6. **Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?**

Yes! Unlike many other parts of the country, the primary obstacle to competition and investment in California's electrical infrastructure is a highly uncertain regulatory and political environment, rather than "open access" per se'. The hostile political and regulatory environment, combined with the strong "command and control" attitude of the ISO and its inordinate emphasis on software development greatly retard efforts to make the California power industry more competitive. Coral would reiterate that while open

access to transmission will increase competition, it is essential to have the transmission infrastructure in place before open access can be successful.

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March 31, 2003

The Honorable Doug Ose
Committee on Government Reform
House of Representatives
2157 Rayburn House Office Building
Washington, DC 20515-6143

Dear Chairman Ose:

Thank you for the opportunity to submit comments on the California Independent System Operator's (CAISO) market design efforts. A stable market design with clear and consistent rules is critical in order to restore confidence in the market and in the CAISO, and we look forward to continuing to work with your office on this crucial effort.

Duke Energy North American (Duke) has actively participated in all phases of the CAISO's Market Design 2002 (MD02), including attending CAISO meetings, stakeholder meetings, and technical conferences, and providing comments throughout the process to both CAISO and the Federal Energy Regulatory Commission (FERC). We were encouraged by our recent market design discussion with Dan Skopec, of your office, and are happy to provide these comments to assist the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs in its continued oversight efforts to reform the California energy market.

Duke is pleased to answer your questions as follows:

1. *Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?*

A well functioning stakeholder process is a critical element to a successful market in California that fosters open communication among all market participants, including the CAISO and the FERC. A structured approach to participation and advisory decision-making will be an important step in re-establishing productivity and confidence in stakeholder activities. The stakeholder process within the CAISO should allow all interested parties to have a voice while being structured to ensure balance among the different parties. Ambiguity abounds in the current stakeholder process and leads to increased confusion and delay. The process would be improved by establishing clear responsibilities for each group and each meeting.

Duke believes that a formal stakeholder committee within the CAISO would help introduce the needed structure into the process of discussing difficult market design issues and making recommendations to the CAISO board. We would envision such a committee would be an advisory committee to the CAISO Board of Governors and have the authority to establish subcommittees to gather non-confidential information and provide recommendations to the Board. Subcommittees could include: 1) reliability subcommittee tasked with issues related to physical and operating security, 2) wholesale market subcommittee tasked with coordinating market design efforts, and 3) tariff and compliance subcommittee tasked with tariff or protocol changes and implementation issues. CAISO staff would provide technical and administrative support for the advisory committee, but the committee chair and other leadership members would be elected from the membership, by the membership. It would be very helpful if FERC staff that is currently at the CAISO would participate in the stakeholder committee meetings as well and provide necessary oversight. While we do believe that lack of CAISO board independence contributes to the perception that the CAISO's agenda is politically motivated and often indifferent to the broader needs of its diverse stakeholders, we feel that a formal stakeholder committee should be implemented as soon as possible, regardless of the CAISO corporate governance structure in place.

2. *Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?*

While it is difficult to label any one aspect of MD02 as being less important than others, a critical component of a successful California market design is the establishment of a resource adequacy

requirement. Consistent with FERC's order requiring a resource adequacy requirement component in the CAISO market redesign, this should be a foundation requirement of the CAISO's market redesign effort, as it represents a potentially strong market signal to trigger investment in new supply and demand side resources; a signal without which California remains in danger of repeating the disastrous events of 2000-2001. CAISO has turned the design of a resource adequacy requirement over to the State, and significant progress in addressing the issue has been made in recent months. Key agencies are moving forward in a more coordinated manner in developing a comprehensive energy plan, and a joint agency working group was established to address resource adequacy.

Congestion management is also critical, but it must be consistent with Western market conditions. The original market design in California utilized a zonal approach to congestion management that did not send direct price signals to load or generation within a node to encourage infrastructure upgrades in congested areas. Although the efforts of the CAISO to implement a market design based on locational marginal pricing (LMP) have been met with significant political resistance, there are ways to address these concerns by implementing the basic elements of LMP now and transitioning to the full LMP model with all its elements.

3. *The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?*

Current and proposed mitigation measures discourage investment in new generation to the extent that they discourage utilities from entering into the long-term contracts necessary to finance new facilities. For example, if the utilities know they can wait to purchase a significant amount of energy in the real-time market at a mitigated price equal to the generator's variable cost, they have no incentive to enter into forward contracts that provide for both the variable and fixed cost recovery of the generation unit. Market mitigation measures should not dampen correct investment signals in the marketplace. Regulated over-mitigation of price signals will result in discouraging the capital dollars needed for new generation or transmission.

In areas where the CAISO has identified that specific generators have local market power, it is appropriate that mitigation measures differ from the rest of the state. However, the bid caps for local market power should only be applied during "non-competitive conditions," which must be based upon physical realities of the transmission system, not on price levels. Bid caps should not be a reaction to political pressures but a thoughtful application of sound economics, proven market designs, and the realities of the system.

4. *How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?*

It is critical that the California market design and the associated oversight rules be coordinated with the rest of the west. As long as rules differ between California and the rest of WECC, market participants will always need to consider where the more favorable rules exist when determining where to do business. This behavior can deprive California customers of the benefits of robust competition.

There is benefit to establishing an entity that can address and resolve seams issues. Currently the Seams Steering Group Western Interconnection (SSG-WI) only addresses possible seams issues, but they have made it clear that they have no decision making authority. There are several critical seams issues that need to be addressed in the West. For example, in determining the amount of transfer capability into and out of the CAISO system, certain assumptions need to be made regarding the status of loads, generation resources, and transmission facilities in other parts of the West. A lack of coordination with respect to the status of the various transmission systems may cause the CAISO to be excessively conservative and will result in a reduced flow of energy across the region. It is important that whatever market structures are adopted by California, RTO West and West Connect be compatible and complimentary.

5. *Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?*

One lesson we have learned the hard way is that California is not an island. It is critical as we move forward that a west-wide market monitor be established to evaluate the markets in WECC

over a broad geographic area. A regional market monitor may be in a better position to assist in implementation of consistent market practices throughout the region.

6. *Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?*

An open access transmission policy increases competition in electricity markets because it provides a level playing field for all entities that seek to participate in wholesale electric markets, thus allowing customers the opportunity to seek the lowest cost generation from a variety of alternatives.

We look forward to continuing to work with you to resolve these issues.

Sincerely,

Melanie Gillette

Melanie Gillette
Manager, Regulatory Affairs

DYNEGY

NRG

The Honorable Doug Ose
Chairman
Subcommittee on Energy Policy,
Natural Resources, and Regulatory Affairs
2157 Rayburn House Office Building
Washington, DC 20515-6143

April 2, 2003

Congressman Ose,

In response to your letter dated March 24, 2003, Dynegy and NRG Energy appreciate the opportunity to provide you with our answers to the questions asked. We hope this information helps your Subcommittee in their continued oversight efforts to help reform the California energy market. As you know, Dynegy and NRG are 50/50 partners in four limited liability corporations, which own the Encina power plant, previously owned by San Diego Gas & Electric Company ("SDG&E"), 13 small combustion turbines in the San Diego area also previously owned by SDG&E, and the El Segundo and Long Beach power plants previously owned by Southern California Edison Company.

Dynegy and NRG Energy respectfully respond as follows:

Question 1. Many Stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss the difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

Answer 1. In our view, the CAISO goes through the motions of holding stakeholder meetings to discuss market redesign, processes and other significant issues, but the current Governor-appointed CAISO Board does not seem to listen to the market participants. Instead the Board follows the political dictates from Sacramento. This is not the type of collaboration required to solve problems. Only an independent Board (independent from both market participants and the State government) will allow the stakeholder process to work and provide meaningful input from market participants and stakeholders. If an independent Board were in place, we would support the concept of a formal Stakeholder advisory committee, which could make recommendations to the CAISO Board. As an example, and in contrast to the original market structure, thus far stakeholders have played a minor role in the development of MD02. This proposal was primarily driven by CAISO Staff, who sought minimal stakeholder input through the submission of formal comments, allowing just two to five days for the preparation and submission of those comments -- far too little time given the breadth of such a critical market proposal. FERC should

deal with the governance issue on independence that is currently before them now. Then FERC should encourage greater stakeholder participation so we may develop a market structure that works properly – and hopefully one that is similar in design to ones that work successfully in other parts of the country.

Question 2. Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed.

Answer 2. While issues such as dispatch procedures, the existence of a day-ahead energy market, and congestion management are important, in our opinion, resource adequacy is the top issue that needs to be addressed by California if it hopes to avoid the shortages that have plagued it in the past. In CAISO's original MD02 filing, it proposed that its Available Capacity ("ACAP") adequacy mechanism would ensure that load would adequately procure resources in forward markets. CAISO has since abandoned its ACAP proposal and has abdicated responsibility to California's regulatory agencies. Regardless of the merits of that decision, CAISO and all California parties must work to resolve the long-term resource adequacy problem before them. Until there is a reasonably clear understanding of what the resource adequacy requirements are for each utility or load serving entity, critical investments will not be made either for new generation or for the re-powering of plants that are at the end (and in some cases past the end) of their useful lives. Questions that are also critical to issues associated with resource adequacy include: who is going to be responsible for buying the power and for providing the power to the load - the utilities, the CPA, the CAISO, or ESP's?

Question 3. The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

Answer 3. Market mitigation measures proposed by the CAISO are the ultimate in belts and suspenders and should be rejected. While they have their origin in some elements of market mitigation in the Eastern markets, they do not reflect the economic or market conditions in California, and instead simply seem to be price control measures. These proposed measures will only serve to increase regulatory uncertainty and reduce the potential for private investment. As has been proven, price control measures, and punitive regulatory and legislative initiatives, will always discourage investment. Over the past several months countless studies have been (and will be) undertaken to understand the causes underlying problems in the California electricity markets in 2000 and 2001. This Subcommittee should expect that any "comprehensive" market redesign proposal – as CAISO claims MD02 to be – would seek to remedy these causes.

In MD02, CAISO identifies the following structural features and design elements of the California markets as the "root causes" that contributed to the dysfunctional market:

- Tight supply conditions in California and throughout the western region;
- Under-scheduling by the utilities in the forward markets, which increases the volume of the CAISO real-time market far beyond its original design and raises the cost and difficulty of ensuring reliable operation of the grid;
- Lack of demand responsiveness to hourly prices, due to (a) limited technical capability for real-time price-responsiveness; (b) insufficient forward contracting for energy; and (c) ambiguous accountability for reasonably-priced power acquisition for retail consumers;
- Exercise of market power, both at the system-wide level and in connection with local reliability needs;
- Inadequate transmission capacity to support competitive markets throughout the CAISO system; and
- Needed enhancements to market rules to improve market efficiency and to ensure that forward schedules are feasible.

From this list, the CAISO immediately discounts the possibility that its design changes could contribute significantly to resolving "tight supply in the western region, limited demand responsiveness, and inadequate transmission infrastructure." In contrast to the CAISO, is an effort led by the California Public Utilities Commission ("CPUC") President Michael Peevey. Mr Peevey's undertaking has resulted in a joint effort by the CPUC, the California Energy Commission, and the California Power Authority to deal with these issues. These agencies on February 28, 2003 released a Draft Energy Action Plan (See Attached) that proposes to deal with optimizing energy conservation, ensuring adequate generation, expanding the transmission infrastructure, promoting distributed generation, and ensuring reliable supply of natural gas. We are encouraged with this new effort as it signals the first significant step in returning some regulatory stability to California, which is greatly needed if the State is to attract the investment required to insure an appropriate level of reserves.

Also attached is a study entitled "An Analysis of the Impacts of the Proposed FERC Resource Adequacy Requirement" prepared by Javier Inon and John Boland of The Johns Hopkins University. This report goes into significant detail of what is required to insure the appropriate level of resource adequacy if America is to maintain a 1-day in 10-year loss of load probability.

In short, we believe that the MD-02 activities are primarily directed at price controls and do not address the root cause of adequate supply in a useful manner.

Question 4. How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

Answer 4. California is connected to the entire Western Interconnect and what happens in California has an impact on other areas throughout the west and vice versa. Therefore, due to California's dependence on electricity imports from the Pacific Northwest and the Desert

Southwest, any market design that does not include input from other states is fatally flawed. There must be a market design that seeks to address, not only California's specific issues, but also other issues that will have an impact on power flows throughout the entire region, such as seams issues, congestion management and loop flows.

We believe that the approach of the CAISO in MD02 is fatally flawed in three respects.

- First, the proposals were developed in a vacuum without regard to the state's other significant needs and requirements. The proposals have been made without the meaningful input of any stakeholders, outside of the Government of the State of California.

- Second, the proposals for the interim are not focused on the end goal but represent another set of band-aids to the existing system. With input from the stakeholder process it is clearly possible to develop interim measures that move toward that end goal.

- Third, there is no discussion regarding a Regional Transmission Organization ("RTO") that is needed to facilitate commerce between the different Western States.

Through a well-structured stakeholder process, possibly facilitated by FERC Staff, that will report to an independent body, it should be possible to identify the critical weaknesses in the proposed market design and to develop strategies that can be incorporated (or in several cases reincorporated) into the CAISO Tariff, protocols and operational software systems to address these problems. The goal of the process must be to move as quickly as possible toward the development of an economically efficient market structure that provides the proper incentives for efficient system operation and for growth and investment in the power sector. The skeleton of the ultimate market design presented in MD02 contains many desirable attributes. In particular, to the extent MD02 is directed toward the same end as the FERC's Standard Market Design ("SMD"), the California structure will approach that being implemented successfully in other North American markets.

Question 5. Should market monitoring and mitigation issues be decided on a regional rather than on a California-only basis?

Answer 5. As stated in the answer above we believe that a regional market creates more efficiencies than an isolated market and the responsibility of market monitors is to assess such efficiency and is also beneficial to the State of California, which is a net importer of electricity from other states. The problem with a state-specific market monitor is that it will not have the proper scope to assess market performance and behaviors correctly. What may appear to be an activity that reduces economic efficiency in one state may in fact be economically efficient when viewed across the entire market, which is the Western Interconnection. For this reason, we strongly support the creation of an independent west-wide market monitor that is the primary source of analysis to FERC regarding the efficiency of RTO-operated markets and the behavior of RTOs and RTO market participants. We also think that market monitoring and mitigation issues should be addressed and resolved by a west-wide RTO. Of course, we also note that a regional monitoring and mitigation program will be less susceptible to political influence from any particular state.

West Coast Power
Submission

Question 6. Does a policy of open access transmission increase competition on electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

Answer 6. Having a transmission system that is truly open will absolutely increase competition. If new market entrants have ease of access and are assured that all participants are treated equally, including no exemptions for native load, then they will have confidence to invest and further develop the market. Open access will increase the efficiency in the utilization of existing resources across the Western Interconnection, which will act to improve reliability and reduce costs. As stated above in response to Question 2, however, we believe the most pressing concern for California is not improved open access, per se; instead, it is the need to assure adequate resources.

The nation must take decisive action to ensure a more robust and healthy electricity industry. The FERC, Congress, and the Administration must demonstrate clear and bold leadership on the major issues involving electric restructuring. Otherwise the country will fail to realize the substantial economic benefits available from newer more efficient plants and competitive markets.

Sincerely,

David Keane
Vice President
Dynegy Generation

Stan Marks
Vice President
NRG North America

INDEPENDENT ENERGY PRODUCERS

April 3, 2003

The Honorable Doug Ose
Committee on Government Reform
House of Representatives
Washington, DC 20515

Dear Chairman Ose:

Thank you for the opportunity to submit comments regarding the critical issues facing California's Energy Market. We look forward to continuing to work with your office to help resolve these challenges.

IEP is California's oldest nonprofit trade association representing the interests of electric generators in California. IEP's members collectively own and operate more than 20,000 MW of installed generating capacity participating in California's competitive markets, and some are involved with new project developments that will operate within the competitive markets. Our members represent a diverse resource mix including, natural gas, wind, solar, geothermal, biomass, landfill gas and cogeneration. Other members, consisting of consultants and law firms, provide support services for the industry.

Below please find responses to your questions:

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

California's broken market needs to be fixed expeditiously. Market Redesign is facing some extraordinary challenges and it is difficult, if not impossible to design a market that is all things to all people. A stable market design, with clear consistent rules is needed in order to restore confidence in the market and the CAISO serving the people of California and the West.

A well functioning stakeholder process is the key to a successful market. Fostering open communication among all market participants, including the CAISO and the Federal Energy Regulatory Commission is important regardless of CAISO corporate governance. A meaningful stakeholder process can identify and resolve issues, or at a minimum reduce the

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number of issues which further litigation would reduce costs for all participants, including the CAISO.

IEP, working in conjunction with other stakeholders, has developed a proposal establishing a Stakeholder Advisory Committee (SAC) similar to the structures found in other successful markets. This structure can and should be implemented immediately, regardless of the CAISO corporate governance structure in place. IEP stands willing and ready to assist in whatever way necessary to establish a successful stakeholder process.

Please find the SAC proposal attached as Appendix A.

2. Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures and congestion management, are completed?

Comments on Resource Adequacy:

The establishment of a Resource Adequacy Requirement (RAR) is critical to a successful market design. A primary cause of the energy crisis was an over reliance on the spot market at the expense of longer term arrangements. During this time, when supply was adequate or in surplus, prices were stable and low. However, as the "surplus" diminished by demand, poor water conditions, and higher gas costs, the spot market became highly volatile.

Volatility in the spot market, in and of itself is not necessarily a bad thing. However, the size of the California/Western market in the volatile spot market caused high energy prices which were subsequently reflected in rates. Much of the economic consequences of the energy crisis could have been avoided through a portfolio approach to long term contracts.

It appears that this was an important "lesson learned". The FERC has required a RAR component in the CAISO market redesign. The State of California has sought from the CAISO the opportunity to design the RAR component which is due in November 2003.The CAISO has provided the State with this opportunity. While how to develop a RAR component is still being debated there seem to be a general consensus that it is a necessary element in California's road to recovery.

It is important to note that California has made significant progress in addressing the resource adequacy issue. Over the last several months the California Public Utilities Commission (CPUC) has developed procurement guidelines for the Investor Owned Utilities (IOUs). In addition, The CPUC has an open docket on procurement for renewable

resources as well as a docket addressing needed transmission. These are positive steps towards building resource adequacy.

Moreover, new leadership at key agencies in California is moving forward in a more coordinated manner in developing a comprehensive Energy Plan. The California Public Utilities Commission, under the leadership of President Michael Peevey, the California Energy Commission, under Chairman Keese and the California Power Authority under David Freeman, has established a Joint Agency Working Group to address, among other things, Resource Adequacy.

However, it is important to translate these good intentions into action. This will require cooperation and coordination between the CAISO, the State of California and the FERC. State and regional policies need to be well integrated into the CAISO market design.

IEP has made the below recommendations to the Joint Agencies.

- <u>Resource Adequacy:</u> **The Joint agencies should determine the level of resource adequacy so that it can be utilized in all proceedings, including the CAISO market redesign, as soon as possible.** A critical component of market redesign is the establishment of a RAR. The precise level of reserves sought out of the market is a policy matter that should be addressed by policy makers. Currently, the only standard that exists is a regional WECC (NERC) operating reserve requirement of 7%, which is necessary to keep the western grid stable. However, adding additional "planning" or "economic" reserves above this minimum requirement is essentially an "insurance" question.

- <u>Resource Adequacy CAISO Integration</u>: **The successful and timely integration of the State's resource adequacy regime into the CAISO's market redesign requires immediate attention.** The establishment of a RAR is a **<u>foundational</u>** requirement of the market redesign effort currently being undertaken by the CAISO. The State, through the CPA, requested that the CAISO delay addressing the resource adequacy issue until November 2003. This delay was granted with the understanding that the State would design and implement a RAR by November. While the Joint Agencies Draft Plan offers a general promise of resource adequacy, it is essential that the State rapidly address how the resource adequacy components will be implemented and a timeline for that process. The CPUC can craft its procurement process in a manner that the Investor Owned Utilities serving as Load Serving Entities have the necessary tools to integrate into the new market design; it is however less clear how public power and other LSEs integrate.

- <u>Resource Adequacy Accountability</u>: **Accountability for resource adequacy in any future design is essential and must be established as soon as possible.** Concurrent with the establishment of a RAR and its integration into the market design, must be the determination of "accountability". Lessons learned from the crisis demonstrate that

over-reliance on short-term energy can have adverse market ramifications, and inadequate reserves of one LSE may have financial impacts for other LSE's who were resource adequate. Market mechanisms should be designed with clear incentives/disincentive to encourage market participants to be resource adequate.

The CAISO should continue to participate actively in the RAR proceeding and should integrate the State's RAR policy into whatever market design is implemented. If the joint agencies fail to establish a RAR by November of 2003, the CAISO should move forward with an alternate proposal.

Comments on "sequencing of market design elements":

California's ultimate market design could utilize a LMP based Congestion management process if it is consistent with Western market conditions. An adequate transition period of at least two years may be necessary to move to this component of market design.

The original market design in California utilized a "zonal" approach to address congestion management. Zonal congestion management aggregated multiple nodes into a zone and only priced "significant" congestion. The ISO managed congestion in a way that did not expose specific nodes to local congestion costs; rather it distinguished congestion costs between north Path 15 and south Path 15 as well as the interties coming into the state. This method did not send direct price signals to load or generation within a node to incentive infrastructure upgrades in congested areas compared to the alternative "nodal" approach.

The CAISO is redesigning its market in a manner more closely aligned with the Eastern markets. Specifically, this design utilizes Locational Marginal Pricing (LMP) at individual nodes, quantifying local congestion costs. The price signals derived from LMP, can provide an incentive for infrastructure investment or Demand Side Management (DSM).

The efforts of the ISO to implement an LMP based market design have been met with significant political resistance from various market participants, specifically related to transmission right allocation and physical vs. financial congestion revenue rights (CRR). There are ways to address these concerns by implementing a model in a transitional manner and by allowing nodal load pockets to be aggregated and averaged through ratemaking. However, this load aggregation may only solve issues for those regulated by the CPUC.

It is critical that if LMP is implemented in California that there is a clear transitional plan.

Furthermore, some have raised the question about whether California's energy topography can accommodate an LMP model (such as Frank Wolak with the ISO MSC). This raises the concern that even if LMP was to go forward, the market would be so mitigated that true LMP may not result. If LMP is not implemented properly should it be implemented at all?

IEP supports the ISO moving forward to purchase hardware and software to accommodate the various components of a successful market design. As a transitionary measure the ISO could implement their "Phase II" components on a zonal basis and still publish the LMP's for informational purposes only. This will allow for market participants to evaluate the impacts of LMP on California and allow for policy makers to make informed decisions based on fact.

This transition would also accommodate a successful implementation of a RAR.

Continuing to "study" previous years market data will be of little help in anticipating future outcomes. California has seen immense change over the last three years including the addition of 8000+ MW, upgrades to transmission systems, new long-term contracts and the declination of "trading activities" among market participants.

It would be adventitious as well as cost effective to study "real" data over a sufficient time period in order to determine the real impacts of LMP in California based on the topographical circumstances that exist now, not then.

3. <u>The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the state?</u>

The key encouragement to new generation is long-term contracts with creditworthy entities in sufficient amounts that will allow a new facility to be financed. For this reason, development of a resource adequacy requirement, along with appropriate implementation of a long-term resource acquisition policy is extremely important.

Current and proposed mitigation measures discourage investment in new generation to the extent that they discourage utilities from entering into the long-term contracts necessary to finance new facilities. This could occur if there are no state and/or federal resource adequacy requirements and the utilities know they can purchase energy in real-time at a highly mitigated price. For example, if the utilities know they can wait to purchase a significant amount of energy in the real-time market at a mitigated price equal to the generator's variable cost, they have no incentive to enter into forward contracts that provides for both the variable and fixed cost of the generation unit.

In areas where the CAISO has identified that specific generators have local market power, mitigation measures should differ from the rest of the state. The bid caps for local market power should only be applied during "non-competitive conditions," which must be based

upon physical realities of the transmission system, not on price levels. In addition, the CAISO should consider that in the Eastern markets any "new" generation added to the grid is not subject to stringent mitigation measures.

The goal of market mitigation should be based upon sound economics and physical realities of the electrical system. Therefore, bid caps cannot be set below what would be the competitive outcome in a functional market. They should not be a reaction to "political pressures," but a thoughtful application of sound economics, proven market designs, and the realities of the electrical system. As we are painfully aware, politics and electrons don't mix.

The market mitigation should not dampen correct investment signals in the marketplace. Therefore, in the absence of a market determined clearing price, the bid cap should be based upon the least cost alternative that recognizes the cost of entry. If bid caps are not allowed to rise to the level of the cost of entry, then the regulated over-mitigation of price signals will result in discouraging the capital dollars needed for new generation or transmission, and the perpetuation of the non-competitive conditions that triggered the perceived need for mitigation.

In our December 9, 2002 comments to the FERC regarding the CAISO market redesign IEP proposed using the least cost alternative approach which could be the capital cost of a new Combustion Turbine (CT). This is proposed because a CT represents one of the most efficient capacity additions, both in regards to capital dollars and time-to-build. It is important that the mitigated unit be allowed to set and receive the LMP clearing price. Failure to do so will result in creating fictitious market outcomes that do not account for the mitigated unit.

4. <u>How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?</u>

The CAISO should continue to coordinate with surrounding states regarding market design and structure. There should be an entity established that can address and **<u>resolve</u>** "seams" issues. Currently the Seams Steering Group Western Interconnection (SSG-WI) only addresses possible seam issues. They have made it clear that they have no decision-making or filing authority and limited ability to resolve anything. There should also be clear communication to the FERC that this committee, as currently situated, does not plan to "resolve" the seams issues.

There are several critical seams issues that need to be addressed in the West. It is important that whatever market structures are adopted by California, RTO West and West Connect be not just compatible but complementary. Clear consistent markets and rules across the entire West would have gone a long way to prevent many of the problems experienced during the crisis.

One of these includes the consistent modeling of power flows and use of transmission nomograms across the West generally, and at the Interties between control areas specifically. This is important because in order to determine the amount of transfer capability into and out of the CAISO system, assumptions need to be made regarding the status of loads, generation resources, and transmission facilities in other parts of the West. A lack of coordination with respect to the status of the various transmission systems may cause the CAISO to be excessively conservative, and will result in a reduced flow of energy across the region.

Another critical issue is the timing of when generation and load schedules can be changed. In the CAISO market, generation schedules cannot be changed with less than 3 hours notice. However, the rest of the Western Interconnect allows changes at least hourly. Thus, if a generation unit in the CAISO control area experiences a sudden, unexpected outage, the owner of that unit cannot look to any generation in the rest of the Western Interconnect to provide a replacement. Instead, that generation owner must rely on the ISO's own reserves, and being exposed to potentially high real-time replacement energy prices.

5. <u>Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?</u>

If we have learned anything from the experiences over the last three years it is that California is not an island. In order to move forward it is critical that an independent West Wide Market Monitor (WWMM) be established that evaluates the markets in the WECC over a broad geographic area and timeframe. This market monitor should be independent of the RTO's management and not subject to its direction, and that the monitor report directly to the FERC's Office of Enforcement and the RTO's board.

A regional market monitor will be in a better position to observe seams issues and recommend appropriate fixes. Moreover, a market monitor that is not associated with a single RTO may be more independent, and may be in a better position to assist in implementation of consistent market practices throughout the region. Furthermore FERC should consider having a staff presence within the market monitor to ensure a direct line of communication between FERC and the market monitor, to observe market activity in real time, and to allow FERC to be in the position to intervene in a timely manner to correct structural or behavioral flaws. An actual staff presence in the West may assist the FERC in understanding the specific situations that may be unique to the West.

A recommended approach to a WWMM may be utilizing existing market monitors within the CAISO on a transition basis until the WWMM is up and running. This will allow for the "institutional knowledge" within the CAISO market monitor to be utilized when establishing a WWMM. In addition, after the WWMM is established there could be monitors on the ground at each RTO.

6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

The Energy Policy Act of 1992 and subsequent FERC orders have provided for a higher degree of open transmission access fostering competition and infrastructure development. Competitive power suppliers account for approximately 36 percent of the nation's generating capacity.

Open access transmission policy increases competition in electricity markets because it provides a level playing field for all entities that seek to participate in wholesale electric markets, thus allowing customers the opportunity to seek the lowest cost generation from a multitude of alternatives. Open access encourages environmentally friendly generation as wind, solar and geothermal units are not located in load areas and depends on the transmission system to get the resources to market. Open access transmission also has a positive effect on reliability by allowing a diverse group of resources in a regional market to meet demand.

This level playing field will make it easier for efficient new generation to compete with existing generation, and for customers to have more options to choose cleaner generating resources or demand response resources. While the economics of new generation versus existing generation will differ from region to region, competitive markets tend to favor the efficient supplier, and the efficient supplier with present technology is typically a combined-cycle gas-fired plant. In many areas, it can be assumed that such new and efficient plants will be the low-cost supplier, and will ultimately replace older generating facilities. California has added almost 10,000 megawatts of new capacity, as well as, the modernization of existing facilities. It is important to note that the risk of building and operating this new capacity has shifted from ratepayers to the private sector.

In addition, a policy of open access to transmission coupled with the implementation of an effective renewable portfolio standard will allow for environmentally beneficial generation to be added helping diversify the supply portfolio. Significant expansion of California's renewable resource base is underway. Moreover, the displacement of older, less efficient generation with new, efficient generation will also have a positive impact on the environment.[1]

[1] For example Calpine Corporation has indicated that a new combined-cycle natural gas-fired power plant, when compared to the average national fleet (based on 2000 data), emits 65 percent fewer emissions of carbon dioxide, 98 percent fewer emission of nitrogen oxide, only trace amounts of sulfur dioxide, and no mercury.

Because there is no "National Standard" for recovery of interconnection/expansion costs, each ISO/RTO is currently forced to set standards and administer rights (if applicable) within their own FTR/CRR auctions. This lack of consistency and establishment of clear standards for recovery may contribute to the ongoing instability in California and possibly prohibit needed infrastructure upgrades. It is IEP's hope that this standard will be ordered at once.

In conclusion, the above issues are critical to the success and rebuilding of California's Energy Market. We look forward to continuing to work with you to help resolve these issues.

Sincerely,

Jan Smutny-Jones
Executive Director

cc: California Congressional Delegation

Appendix A

Stakeholder Advisory Committee
-Draft[2]-

Overview:

The California Independent Energy Producers (IEP) recommends the formal creation of a Stakeholder Advisory Committee (SAC) to provide advice and recommendations to the CAISO Board and Staff on matters relating to the reliable operation and planning on CAISO grid. IEP has also approached various other market participants who have indicated support of the development of a much more formal process to provide and obtain feedback to the Board, to allow for rationed and reasonable debate, and to track the disposition of issues. The envisioned process, as summarized below, and will be detailed in future drafts, is intended to increase the efficacy of discussions without allowing undue influence on the outcome by any particular participant or group of participants.

Some of the concerns expressed by stakeholders on the current process have been the ad hoc nature of meeting and agenda creation that has also been compounded by the sheer volume of issues at hand. This has resulted in substantial confusion, misunderstanding and unneeded expense. But most significantly, the productive dialog that characterized the ISO process in the early days of operation has substantially subsided.

An all-inclusive stakeholder advisory committee would be created and codified in the ISO tariff. The Committee will be an advisory committee to the Board of Governors. Their limited authority would be supported by the targeted efforts of ISO Staff, subservient subcommittees and ad hoc work groups. Recommendations from the Committee would be established by sector-specific voting. Each sector would be limited in size - if at all - only for administrative convenience. The Committee would have only the authority delegated to it by the tariff or Board, and would have no independent standing at FERC.

As a beginning point, the SAC could focus specifically on MD02-related issues.

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[2] This proposal is currently a "work in progress" and is not meant to incorporate all issues associated with a Stakeholder Advisory Committee. In addition, IEP is currently working with other stakeholders, and the ISO to incorporate their comments and positions. After comments have been received and incorporated a formalized document will be published.

Advice and recommendations from the SAC are non-binding upon the CAISO Board; instead they will serve as the means by which stakeholders will provide formalized input to the CAISO's decision-making process. We would also encourage the FERC staff, currently at the CAISO to participate. Further, any filings containing tariff changes made by the CAISO before the FERC shall include information related to the advice and recommendations received from the SAC prior to the CAISO board vote approving the filing.

General SAC Structure:

All substantive policy issues to be brought to the ISO board should first be reviewed by the SAC, with a recommended course of action emerging from that group. Each ISO Market Participant will have the ability to appoint a representative to serve on the SAC with the authority vote on issues. This designee will be for "administrative coordination" only.

Voting on the SAC will be done by sectors. As a starting point, sectors could be defined as: (1) generators and marketers, (2) transmission owners, (3) municipal utilities, (4) public interest groups (e.g., consumer advocates, environmental groups, citizen participation), (5) alternative energy providers (e.g., distributed generation, demand response technologies, renewable energy), and (6) load-serving entities (7) Joint Agency representative.

Working groups within the SAC structure should be used as the primary mechanism to identify and resolve particular issues. For example, with regards to the MD02 issues, the Working Groups could be made consistent with the Working Groups that were formed last summer. These include: Integrated Forward Markets, LMP/CRRs, and the implementation of the Joint Agencies Resource Adequacy Requirement (to be completed 11/03), Another working group should be added to incorporate the current efforts being undertaken in the JAD process. As this process evolves, more general subcommittees could be established such as: 1) Market/Operations Committee, 2) Technical Issues Committee, 3) Planning Committee, 4) Tariff Review Committee, just to suggest a few. By streamlining this process it will allow for the CAISO staff to utilize their resources most efficiently and reduce costs borne by multiple meetings.

Proposals should be presented to the SAC by the appropriate working group with a recommended course of action, benefits and risks associated with that action, as well as similar information provided for the alternatives. In bringing an issue to the SAC, the working group should: 1) identify or clarify the issue problem at hand, 2) analyze the problem, 4) make clear recommendations where consensus is possible, or 5) identify and clearly describe alternatives and their implications where consensus is not possible.

These "framed" issues will then be taken up at the SAC, where a vote will then be undertaken with the issue re-framed as a motion. Each Sector will be entitled to cast one

vote. For example if there are 7 Sectors, a motion will be passed if it gets more than 4 votes. However, both the top minority and majority positions will be included in the issue presentation to the Board.

For the purposes of determining each Sector's vote, each Market Participant within that sector shall be entitled to one vote. The overall vote of each Sector will then be split into an affirmative component based on votes in favor of the pending motion, and a negative component based on votes against the pending motion. For example, if there are 8 Market Participants in a particular sector, and 6 vote "yes" on issue while 2 vote "no" on the issue, the vote from the Sector will be counted as .75 "yes" and .25 "no."

Again, when issues are communicated to the ISO Board both the Minority and Majority position will be conveyed independent of Staff recommendations. The board will then have stakeholder, ISO staff, and perhaps the Market Surveillance Committees (depends on issue) positions prior to making a decision.

The ISO Staff would provide technical and administrative support for the Committee, including without limitation, report generation, analysis of issues, meeting coordination, document access, and distribution, and recording meeting minutes. In addition, the ISO Staff could Chair all subcommittees and ad hoc work groups. The ISO staff participation and support of this proposal is critical to its success.

Below please find a few benefits to the establishment of a SAC:

1. The creation of a SAC serves as the focal point for disseminating key information, allowing market participants to participate most effectively. This information dissemination will allow for a more complete understanding of issues by stakeholders and reduce further litigation. For example, one of the problems with the current MDO2 process is that it is splintered into many different pieces, and stakeholders are not able to provide meaningful input because it is unclear where to best allocate resources and so stakeholders have no choice but to litigate or in some circumstances, legislate issues.

2. The SAC process allows stakeholders to proactively identify their priority items, instead on reacting to CAISO staff's issue list. The SAC structure will provide for a more formalized structure for stakeholders to identify alternative solutions. The CAISO will also have a forum within each working group to bring specific issues to the "right people". For example, it would be best to bring a computer software issue to the JAD group and not the "tariff" committee.

3. The SAC will communicate clearly with the ISO. Because of the lack of a clear position from the different Sectors, it is currently difficult for ISO staff to craft proposals that satisfy as many constituents as possible. The SAC solves this because it allows an easier tallying of positions taken by various stakeholder segments. In addition, stakeholders will have a responsibility to clearly articulate their positions in a constructive fashion prior to the issue moving to the FERC.

Mirant Responses to the Questions of Congressman Doug Ose
Regarding the California ISO's MD02 Process
March 28, 2003

Question 1:

Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO Board? Is the lack if independence of the CAISO board a hindrance to the stakeholder process?

Answer 1:

Mirant answers each of these questions separately, as follows.

What can FERC or the CAISO do to improve the stakeholder process?

The single most important action that FERC can take to improve the stakeholder process is to enforce (through the courts or whatever other means possible) the numerous FERC orders that direct the CAISO to put in place an *independent* governing board. It is impossible to have an effective stakeholder process when the CAISO is not independent and is wholly governed by the Governor of the State of California.

Second, as discussed below, the FERC should put in place formal, subordinate advisory committees that report directly to the FERC-directed independent governing board. In fairness to the CAISO staff, they solicit and receive enormous amounts of stakeholder input. Quite often, much of this input is mutually exclusive, thereby guaranteeing that a large segment of stakeholders will be upset, regardless of the CAISO's ultimate decision. The CAISO, however, could improve the manner in which it explains the underlying rationale for its decisions—this is particularly true with respect to CAISO decisions rejecting as "not workable" specific alternatives proposed by stakeholders. By foregoing any type of explanation or dialogue, the CAISO often appears to be going through the motions of soliciting input and then ultimately implementing the design policy directed by the Governor-controlled CAISO board. Without feedback from the CAISO, it is difficult to identify when the CAISO thoughtfully and objectively analyzed and considered critiques and alternative stakeholder proposals.

Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO Board?

With regard to a formal stakeholder advisory committee, such a committee must be properly structured and several, important preconditions must be in place. First and foremost, there must be a truly independent governing Board that balances all interests to ensure reliability. Absent an independent governing Board, the advice from any advisory committee would not be properly weighed in the decision making process.

Second, the composition and voting practices of any stakeholder advisory committee must reflect equal representation of the supplier interests and consumer interests. Clear provisions for development and presentation of minority viewpoints would be mandatory.

Is the lack if independence of the CAISO board a hindrance to the stakeholder process?

As discussed above, the lack of independence of the CAISO Board is the single greatest hindrance to the constructive resolution of issues facing California electricity consumers. The current board is a political body appointed by the Governor, which makes decisions based primarily on politics. For example, the current board is delaying implementation of Locational Marginal Pricing, which is, as acknowledged by the CAISO, the most accurate way to manage grid congestion and the best methodology for preventing "gaming" and "manipulation" of the market. This delay is caused by the irrational fears of certain stakeholders who have been able to put political pressure on the board to delay implementation with respect to this important issue. Furthermore, the current board lacks professional expertise in areas required for truly informed decision making. A qualified independent board would make design decisions based upon the technical merits of the issues, and stakeholders would only be able to influence such a board based upon the strength of their arguments and not the degree of their political influence. The former CAISO Stakeholder Board was a truly independent board with all stakeholders represented and able to provide their respective expertise on the issues. (See Attachment 1 - The Original CAISO Stakeholder Board Vs. Governor's Appointed Board.)

Question 2:

Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should reserve adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management are completed?

Answer 2:

Mirant does not see any reason why the various issues cannot be resolved in parallel. Given the proven history of resource <u>in</u>adequacy in California, Mirant believes that this issue should be addressed with the highest level of priority. Specifically, "reserve adequacy issues" should be resolved before, or at least in tandem with, other issues.

Question 3:

The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

Answer 3:

Do current and proposed mitigation measures encourage investment in new power generation and transmission infrastructure in California?

Mirant believes that the current combination of unduly tight mitigation measures and the lack of a resource adequacy requirement are strong inhibitors to incremental investment in California generation. A "pure" energy market without any mitigation measures would be sufficient to attract generation and transmission infrastructure into California, provided that policymakers were willing to accept periodic price increases. Mirant notes that there are many ways that individual customers and/or load serving entities can protect themselves from such price increases in this type of market design. Alternatively, a more tightly mitigated market can provide investment incentives *if* a sufficient resource adequacy requirement is in place to replace the revenue stream that would otherwise come from intermittent price increases. The current environment, however, provides neither and thus does not provide a legitimate opportunity for new investors to recover their investment plus a market return.

In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

With regard to local market power, Mirant supports mitigation of these units, however, Mirant believes that cost-based mitigation of these units is inappropriate for several reasons. First, cost-based mitigation provides no financial incentive for any market participant to rectify the situation and merely entrenches the market power problem. Second, Mirant believes that resources that have market power are usually located in places that are especially advantageous to the grid. Accordingly, these units deserve financial recompense that recognizes the locational value of these units. For these reasons, Mirant advocates a Combustion Turbine (CT) peaker cost proxy methodology, whereby resources with Local Market Power are restricted to bidding up to the cost of a hypothetical peaking unit that would be constructed to alleviate the constraint.

Question 4:

How important is it that the CAISO coordinate its market design efforts with the surrounding states? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

Answer 4:

A single market design for the entire Western Interconnect would maximize efficiency, and hence create consumer benefits for the entire area. Currently, California and the rest of the Western Interconnect have substantially different market designs. At present, there is no organized operational market in the west outside of California. If the rest of the western region adopts FERC's SMD design principles and the CAISO implements MD02 along the lines generally being proposed, the two regions would move closer toward

reducing the "seams" created by market inefficiencies between the regions. In the broadest sense, the CAISO's MD02 approach has the potential to move California closer to where the rest of the west might also be going (depending upon the ultimate outcome of FERC's SMD proposal and the RTOWest and Westconnect proposals). In any event, if California continues along the MD02 path and the rest of the west retreats from the RTO proposals, then the CAISO would be more efficient and the rest of the west would likely be less efficient to their detriment.

Question 5:

Should market monitoring and mitigation issues be decided on a regional, rather than on a California-only basis?

Answer 5:

Mirant strongly supports a single west-wide market-monitoring agency. The west is, in fact, a single, integrated regional electricity market and effective market monitoring must be done on the same scale to be effective. Balkanized market monitoring will result in analysis that resembles the fable of blind men trying to describe an elephant by feeling different parts. Regional monitoring will also result in higher quality analysis based upon actual evidence that is detached from the lynch mob atmosphere that often times is associated with localized single state monitoring efforts. Some market participants/government entities have proposed 'hybrid" models whereby local entities continue to monitor "local" issues, while a west-wide agency monitors west-wide, or "seams" issues. Mirant believes this approach would be the worst of all possible worlds --highly inefficient, more costly to consumers, and less likely to perform accurate assessments of the market. Such approaches are blatant attempts to protect turf and should be summarily rejected.

Question 6:

Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

Answer 6:

Mirant believes without reservation that open access transmission not only increases competition in electricity markets, but it also is absolutely crucial for the continued existence of a competitive market. Despite all of the crisis atmosphere and fundamental design flaws of the California market since its restructuring, the total wholesale costs of electricity have been less under competition than they would have been under existing utility tariffs according to some analyses. Nationwide, many <u>published</u> analyses demonstrate significant savings in restructured competitive markets.

A good analogy comes from looking at the U.S. Steel industry circa late fifties/early sixties. Because the U.S. Steel industry had very large investments sunk in existing production technology, it resisted implementation of the newest, most efficient technology preferring to first extract maximum usage from its sunk plant costs. Overseas competitors, however, had a different incentive. They invested in new technology and drastically reduced production costs. This enabled them to undersell the U.S. producers and provide U.S. and worldwide consumers with much less expensive, and higher quality, steel products.

Compare this to the integrated utility monopoly model. Utilities have no incentive to build new capacity until total aggregate demand outstrips their ability to meet it from existing plant. Competitors, however, will always see opportunities to deploy more efficient (both economically and environmentally) technology to serve customers at lower prices, and with fewer emissions. Thus, competition will clearly provide consumer benefits if access is open allowing competitors to reach potential customers.

With regard to reliability, as long as parties are not artificially restricted in their contracting activities, competition improves reliability because it increases options. This is true from both a planning ahead perspective, and from a scrambling in real time perspective. The potential negative to reliability in a restructured, competitive market comes about when it is "overly administered" with restrictive rules that have unintended consequences that actually reduce resource availability.

Finally, competition provides an additional opportunity for environmental benefit. Pilot programs have consistently proven that, if consumers have retail choice, a moderately high percentage will voluntarily choose to purchase "green" power even when it raises their rates to a moderate degree. What could be more in tune with American principles and values than obtaining significant environmental improvement via individuals exercising freedom of choice (versus being forced into it via mandates)?

The Original CAISO Stakeholder Board
Vs.
Governor's Appointed Board

Pre-Davis Appointments (3 gen types out of 26):

Jan Smutny-Jones (Chair) IEP
Barbara Barkovich - Barkovich and Yap
Greg Blue - Dynegy
Bill Carnahan - City of Riverside Public Utilities
Camden Collins - Non-market participant
Gary Cotton - SDG&E
Marcie Edwards - LADWP
Richard Ferreira - SMUD
John Fielder - SCE
Mike Florio - TURN (Consumers)
Karen Johanson - League of Women Voters
Stephen Kashiwada - CDWR
Carolyn Kehrein - Energy Mgmt. Svcs.
Daniel Kirshner - Environmental Defense Fund
Jim Macias - PG&E
John McGuire - Silicon Valley Power
Jack McNally - IBEW
David Parquet - Enron Capital
Stacy Roscoe - Proctor & Gamble
Elena Schmid - Association of Bay Area Governments
Patricia Spangler - Independent Consultant
Jerry Toenyes - WAPA
Terry Winter - CAISO
V. John White - Ctr. for Energy Efficiency & Renewables
Ken Wiseman - Agricultural Energy Consumers
Erik Woychik - Strategy Integration

Advisory Members:
Paul Arnold - BPA
Zora Lazic - Powerex
Dan Nix - CEC
Mark Ziering - CPUC

DAVIS APPOINTMENTS:

Michael Kahn - Folger, Levin and Kahn (Long-time personal friend of Gov. Davis)
Mike Florio – The Utility Reform Network (TURN)
Tal Finney - Interim Director of Governor's Office of Planning and Research (Personal friend of Gov. Davis)
Carl Guardino - President & CEO, Silicon Valley Manufacturing Group

Congressman Doug Ose
Chairman
Government Reform Subcommittee on
Energy Policy, Natural Resources and Regulatory Affairs
2157 Rayburn House Office Building
Washington, D.C. 20515-6143

Dear Congressman Ose:

Set forth below are the responses of the Northern California Power Agency[1] to the questions in your letter of March 24, 2003. On behalf of NCPA's members, I would like to thank you and the members of the Subcommittee for your continuing attention to this critical issue. The experience of California in 2000-2001 and recent events in Texas[2] underscore the importance of getting market design right, and the enormity of the potential consequences of getting it wrong.

As participants in whatever market redesign may occur, NCPA members are understandably concerned about and very involved in the MD'02 and SMD processes. We have seen firsthand the potential for disaster when market design efforts fail. The results of the failed market design – soaring prices, decreased reliability, and questionable business practices that may have cost Californians billions – must be in our minds as we move forward with any redesign.

The touchstone for this process has to be benefit to consumers. Any market design must increase efficiency and reliability. It must be workable and practical. For these reasons, NCPA believes that any market design must be modeled and tested prior to implementation. Not merely tested by the CAISO and FERC, but also by independent parties and stakeholders.

It is with that in mind that we address the six specific questions you have asked regarding this very crucial issue.

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[1] NCPA is a nonprofit California joint powers agency established in 1968 to generate, transmit, and distribute electric power to and on behalf of its fourteen **members**: cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Ukiah, the Port of Oakland, the Truckee Donner Public Utility District, and the Turlock Irrigation District; and four **associate members**, Bay Area Rapid Transit District, Lassen Municipal Utility District, Placer County Water Agency, and the Plumas-Sierra Rural Electric Cooperative serving nearly 700,000 electric consumers in central and northern California.

[2] According to a March 3, 2003 report from the Public Utility Commission of Texas' Market Oversight Division, peak market clearing prices frequently reached $990/MWh, an 18-fold increase from the previous week, during the extreme weather event of February 24-26, 2003. The report notes that the price spikes appear to be the result of concerted efforts by some market participants to raise the clearing price artificially.

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

NCPA Response: The stakeholder process should be formalized. Specific lines of communication and a definitive commitment are essential to building confidence and trust in the process.

As an example of the current lack of trust in the process:
At the March 21, 2003 Electric Oversight Board Meeting, ISO Vice President Randy Abernathy clarified for the board that one of the reasons they were having so many problems with the current software was that the ISO had purposefully avoided upgrades, ongoing maintenance and other improvements in anticipation of capital improvements associated with the implementation of MD02.

So here we have a situation where the ISO is on record at FERC, with the Senate Select Committee, its own board and to various legislative representatives at the both the State and Federal level that one of the primary reasons MD02 software must be put in place is because of the number of patches and trouble tickets associated with the existing software. In fact, it now appears that the current software problem was apparently either partially or largely self-inflicted. It is also readily apparent that ISO executive staff has made the decision that the MD02 software will be installed even though FERC has not given final approval to the plan and even if that uncertain installation is to the detriment of current operational needs. It is this type of preordained outcome that causes mistrust with the entire ISO sponsored process.

As pointed out by the City and County of San Francisco in a recent protest filed with FERC:

"There is no generally understood procedure for addressing concerns that arise in comments, nor any method for communicating those concerns to other parties or providing a forum for resolution. The ISO has taken to 'managing' the stakeholders, not collaborating with them to settle outstanding issues." (Protest of the City and County of San Francisco and Request for Reinstatement of Stakeholder Procedures in MD02, March 21, 2003, p. 3.)

The details of any market design and all of its elements must be fully developed before implementation is commenced. The process must have real milestones and triggering events so that it does not appear that some aspects of the market design are being put in place even while stakeholder input is being asked for.

There must be a genuine commitment to the notion that the process will seriously consider stakeholder concerns and comments and provide adequate responses as to

how the comment is being incorporated or why it is not. This type of real consideration is essential to building trust and a feeling that stakeholder issues are being taken seriously.

To the extent that valid stakeholder concerns are ignored, rather than recognizably dealt with in the decisions, the result is, and will appear to be, arbitrary and capricious and subject to reversal in the Courts of Appeals. That does not assure the stability that is needed for any market to work, nor does it engender confidence in stakeholders or in the public.

There should be no implementation or phase-in of any aspect until the entire market design has been vetted, tested, verified and subjected to third party scrutiny. Any market structure is only as good as the sum of its various component parts. No plan can be adequately tested piecemeal and the market participants and public should not be asked to accept anything other than a complete plan.

Finally, once a plan has been fully developed, tested and verified then and only then should implementation begin. The implementation should follow along the phase-in approach used by PJM to allow for gradual market adjustment, real world monitoring and, if necessary, refinement of the market design.

2. Should the sequencing of MD'02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

NCPA Response: In a word, yes. Any market design that builds on lack of generation and, just as importantly, inadequate transmission capacity will be fundamentally flawed. Adequate generation capacity, including sufficient reserves will help deter the possibility of market participant withholding during critical times.

Just as important in California is the bottleneck effect of the current inadequate transmission system. For decades, California pursued a strategy of building generation facilities outside of the state and transmitting the power into the state to meet demand. This approach works only so long as the transmission system keeps pace with generation and load. Unfortunately it has not.

Particularly in the Northern California area, PG&E admits that it engaged in a policy of "least cost planning" for transmission purposes, in which the tradeoff was assumed to be the additional cost of energy from inefficient generation in isolated load pockets vs. the total cost of new transmission. The practical effect was to produce a much less robust transmission system than exists elsewhere in the State, or in the West in general, and one that leads to high congestion problems.

With the first foray into deregulation of the market much of PG&E's generation was sold to entities who believed they were entitled to bid any price the market could

stand and the "least cost planning" regime produced a "most cost operations" result. The addition of substantial additional transmission is probably even more important than additions of generation capacity, although both are necessary for the sort of market regime contemplated by MD'02 to succeed.

3. The crisis of 2000-2001 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

NCPA Response: Stringent market monitoring and mitigation authority is an essential element of a functional electric market. Even PJM, the poster child of an effectively functioning market, reports in its "State of the Market 2002"

- There are potential threats to competition in the energy, capacity, regulation and spinning reserve markets that require ongoing scrutiny
- Market participants have the ability to exercise market power at the interfaces between PJM and external regions under some conditions
- Market participants possess some ability to exercise market power in PJM energy markets under certain conditions, and
- Market participants possess some ability to exercise market power in PJM Ancillary Services markets under some conditions.

If the recent FERC hearings on Enron and other market manipulation activities have taught us nothing else, it is that the regulators and market monitors must be much more vigilant in terms of identifying and responding (through mitigation and penalties if necessary) to instances of market power abuse and other market manipulation tactics.

But more importantly, there are no functional competitive energy markets today that do not contain a resource adequacy element. Focusing primarily on the mitigation without attending to the lack of a resource adequacy element in California merely addresses a small part of the overall problem with California's market design.

Unfortunately, besides the glaring defect of no Resource Adequacy element in the MD02 design, the ISO has failed to complete any meaningful analysis of LMP that might shed some insight into the types of market conditions that would lead to market power abuses and/or the types of additional mitigation measures that may be appropriate in response.

It is therefore, difficult to assess the incentive or disincentive effect of MD'02 in light of the lack of specificity regarding mitigation and implementation of certain critical elements (e.g., Resource Adequacy, LMP, CRR). NCPA has historically maintained the position that the LMP/CRR approach serves as a disincentive to investment – particularly in generation – because parties will not have the long-term transmission certainty critical to bilateral long-term power supply arrangements. Given the current

state of affairs in the California energy market, we do not believe that LMP will result in substantial improvement to the transmission system.

As we noted above in our response to question 2, any market design that does not address the generation and transmission capacity constraints simply institutionalizes the fundamental problems that underlie the problems seen in 2000-2001. As we learned, inadequate generation facilitates exacerbate the possibility of withholding during critical times. Transmission bottlenecks create significant local market power situations. Both of these result in market distortions and deprive consumers of any benefits that might come from a well-designed competitive market.

Unless local market power situations can be resolved, mitigation must be in place. (Practically, this probably means mitigation will be a permanent feature of any market design.) The mitigation measures must be specific to the identified problem and well defined in advance of the implementation of the market design as a whole. Only when viewed as a package in its entirety can market participants and consumers make informed decisions about the design and its potential to produce real benefit to consumers.

4. How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

NCPA Response: It is essential that California not isolate itself from the western region. The fact is that generation, transmission and markets are regional in nature. Any market design that does not incorporate this reality into its fundamental structure will not be able to deliver on the promise of benefit to consumers.

As we have seen, when California's markets are more restrictive or less profitable, power flows away from the state causing inflated prices and reliability problems. Conversely when the state's market is seen as freer or more lucrative, our neighbors suffer and the transmission inadequacies are exacerbated.

For very practical reasons, California cannot adopt a parochial approach, but must act in concert with those who depend on the western grid system. This regional approach will allow for maximum efficiency, reliability and consumer benefit. This broad based design also allows for maximum use of a wide array of environmentally benign generation sources.

5. Should market monitoring and mitigation issues be decided on a regional, rather than on a California-only basis?

NCPA Response: As noted in our response to question 4, the market for electricity is inherently regional, rather than local, in nature. Of course, when transmission constraints become a factor, the inherently regional market will differentiate itself

into smaller regions (sometimes quite local in scale), in which a few generators will have market power.

Since State authority is required for most entities to condemn land for a transmission right of way (unlike the situation under the Natural Gas Act), and since additions to the transmission grid are a key part of the necessary solution, the State will have to remain involved at some level, unless Congress chooses to give FERC the sort of right of way authority it has over gas transmission lines.

However, the mitigation rules and the monitoring mechanisms have to work throughout the West, since experience has shown that the entire WECC (which is not synchronously connected with the remainder of the country) operates as a single market, and that entities can and will take advantage of different market rules to game the system. The experience of the 2000-2001 meltdown makes it clear to us, at least, that California cannot effectively attempt to control the market by itself, and that a broader authority is needed.

A situation in which the State can stop – but not direct – new construction, and the FERC cannot either direct or stop that construction, is not a stable long-term solution. In our view the market monitoring and mitigation approaches have to be uniform throughout the West, but the actual monitoring has to be done on a basis which is sufficiently granular to catch and halt the exercise of market power in the smaller areas into which the market fractionates until the completion of adequate transmission upgrades.

6. Does a policy of open access transmission increase competition in electricity markets? Does is have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

NCPA Response: NCPA as a transmission dependent utility cannot operate without open transmission access at some level. It is not surprising then, that we have a long history of support for the concept. It must be noted however, that for open access to produce real benefit, it must be implemented correctly in a transmission system with adequate capacity. Without adequate capacity, it cannot have a positive impact on reliability.

In light of recent events, the public's confidence in the ability of markets to provide efficient, reliable electric service has been badly shaken. It is therefore essential that any new market design, MD'02 or SMD, be the product of a very open, public process; that modeling and verification of benefit be demonstrated; that the market design is understandable, practical and workable; and, that there be buy-in from those who will have to live within whatever new system is developed.

Reliant Resources

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April 1, 2003

The Honorable Doug Ose
United States House of Representatives
Committee on Government Reform
2157 Rayburn House Office Building
Washington, DC 20515-6143

Dear Chairman Ose:

In response to your letter of March 24, 2003, concerning your unyielding efforts to reform serious structural flaws that exist in California energy markets, we submit the attached material. In the responsive attachment, the 6 questions posed by you are reiterated with our response included thereafter.

Please know that we at Reliant continue in our desire to cooperate with you and others in your efforts to reform the rules that pose continuing and significant risks both in California and throughout the region.

Should you need anything further in response to your questions, or in any other matter, please do not hesitate to contact me.

Sincerely,

Bud

Bud Albright

Attachment

Responses to Questions from Congressman Ose
March 26, 2003

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

   Nearly all market participants agree that the CAISO stakeholder process lacks opportunities for stakeholder input and needs to be reformed. CAISO should establish a stakeholder advisory committee with representatives from the various stakeholder constituency groups (IOUs, municipals, generators, etc) and a formalized voting structure. Such a committee would be advisory only, but it would provide stakeholders with a direct voice in the market redesign process and a mechanism for communicating directly with the CAISO board. This significantly improves the current process wherein stakeholders are allowed to comment on draft proposals developed by the CAISO staff without a formal structure that provides for direct stakeholder participation directly in the CAISO process of setting priorities, formulating policy positions, or determining the scope and content of technical evaluations.

   Reliant believes that a stakeholder advisory committee could be established within the current CAISO governance structure without waiting for resolution of the governance dispute between the State of California and FERC.

2. Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

   Given the extensive mitigation measures in place in California, a resource adequacy mechanism is an essential feature of a redesigned CAISO market. A resource adequacy mechanism will allow the CAISO to monitor the level of demand and available supply resources on a forward looking basis, and if necessary, take actions to ensure that adequate reserve margins are maintained. Reliant believes that implementation of a well-designed resource adequacy mechanism should be the top priority for the California electricity market redesign. The CAISO proposed such a mechanism in its initial MD02 filing with FERC in June 2002, but has since requested that FERC defer consideration of its proposal pending resolution of the State's efforts to develop a workable mechanism. Reliant is actively involved in the State's initiatives and supports its objectives. These initiatives, however, do not

displace the need for a comprehensive resource adequacy mechanism administered by the CAISO, and we have urged FERC to require CAISO to continue its development efforts.

Congestion management reform is also a key priority and should be implemented as expeditiously as possible. The current congestion management process is dysfunctional and requires the CAISO to perform all congestion management in real time using manual procedures. Reliant believes that congestion management reform, both in terms of deciding the policy issues for new system design and implementation, can be accomplished in a manner that captures the benefits of efficient, competitive wholesale markets, while allowing the retail impacts of locational marginal pricing to be addressed by local regulatory authorities.

3. The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the state? If so, how?

   The current and proposed CAISO mitigation measures discourage investment in new generation and transmission by muting price signals and reducing the revenue streams necessary to make new generation projects economically viable. For this reason, mitigation measures intended to reduce price volatility must be accompanied by a meaningful resource adequacy requirement to encourage new infrastructure investment.

   Local market power concerns typically stem from a lack of infrastructure or concentration of generation ownership. These factors are unique to the local area and differ from statewide or regional market conditions. As a result, local market power should be mitigated through effective congestion management practices and contractual arrangements such as reliability must run contracts, or proxy unit pricing, that provide for the recovery of both fixed and variable costs.

4. How important is it that the CAISO coordinate its market design efforts with the surrounding states? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

   California is an integral part of the West-wide electricity marketplace. As such, it is essential that California's market design be compatible with neighboring states. The CAISO and the other proposed western RTOs (RTO West and WestConnect) are working together through the Seams Steering Group – Western Interconnection (SSG-WI) to develop an integrated Western market. One of SSG-WI's primary tasks is the development of a standard

market interface mechanism through which market participants throughout the West can transact business in all three RTOs. This market interface is intended to account for the different market design proposals of each RTO. Its development will also be an evolutionary process so that each RTO can develop or revise its market structure independently rather than requiring concurrent implementation. Through continued active participation in the SSG-WI process, the CAISO can move forward with its market redesign efforts and ensure that its new market design will efficiently integrate with the rest of the Western Interconnect.

5. Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

   Market monitoring issues are both local (California-only) and regional (West-wide) concerns. While it is important that each individual RTO have an independent monitoring organization to focus on issues within its own market, it is vital that a regional market monitor be in place to monitor West-wide market issues as well as the performance of the RTOs themselves (to the extent that the local market monitors are not independent of RTO management). The West-wide market monitor should be independent of all market participants (including the RTOs) and should report directly to FERC. This issue is currently under consideration in the SSG-WI process.

6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

   A policy of standardized, non-discriminatory open access transmission service is vital to creating a robust wholesale electric power market that will ultimately lead to lower prices and more reliable service to end-use customers. Standardized transmission service increases competition in electricity markets by eliminating discriminatory treatment of market participants, removing barriers to entry by non-incumbents, and allowing suppliers to compete based on economic efficiency. Standardized transmission service has a positive impact on reliability by facilitating new infrastructure development and optimizing the commitment and dispatch of resources within the regional market. Because open access ensures a level playing field, it provides opportunities for environmentally beneficial resources to compete effectively.

1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design.

- SCE believes that FERC and the CAISO have provided significant opportunity for stakeholders to indicate their views. We would encourage the continuation of these stakeholder discussions to ensure that all market design issues are examined and discussed. The CAISO has facilitated stakeholder input through the use of focused working groups, Joint Application Development (JAD) sessions, online stakeholder discussions, FERC technical meetings and filings, and various regular CAISO meetings (e.g. Market Issues Forum, Market Surveillance Committee, CAISO Board meeting). In these venues over 160 design issues have been identified and discuss. The perception that the FERC and CAISO have not taken into account stakeholder views on market design may be attributed to the sheer number of stakeholders, the differences in their opinions, and complexity of market redesign.

2. What can FERC or the CAISO do to improve the stakeholder process?

- FERC should not compel ISOs/RTOs to adopt schedules that constrain the stakeholder process.
- Improve communication with stakeholders after CAISO has made a decision on market design.
- CAISO should explain how it intends to use the stakeholder input (e.g. listen to all input then make its decision, etc...)
- Provide timely feedback to stakeholders on questions or concerns raised.
- Provide clearer written descriptions of market design elements and the reasons why specific elements are being proposed as a basis for effective stakeholder discussion
- More clearly explain what "issue resolution" means (i.e. conceptual agreement but implementation details to be resolved vs. complete resolution)

3. Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board?

- Not at this time. Resolution of the CAISO governance question (State-FERC disagreement over board independence) must be achieved before a formal stakeholder committee process can be implemented. Until it is clear to whom the CAISO Board is accountable, a stakeholder committee relationship to the Board cannot be clearly defined.

4. Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

- The CAISO Board has encouraged the use of the stakeholder process as evidenced by the number of forums offered for stakeholder input. The primary hindrance to the stakeholder process is not the CAISO Board, but the divergence of stakeholder opinions, the complexity of

market design issues, and the lack of in-depth understanding of these issues by many of the stakeholders.

5. Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

- No, resource adequacy issues are currently being considered in the California regulatory processes. FERC has previously indicated its willingness to allow states to develop their own resource adequacy requirements, as long as they are no less than those proposed in the SMD. Furthermore, FERC has not completed its SMD process, nor finalized any resource adequacy requirements. The MD02 and resource adequacy processes should proceed in parallel such that each can be finished in a timely, but appropriate manner.

6. The crisis of 2000-01 was, at root, caused by a lack of supply.

- In its March 26, 2003 report, FERC correctly summarized that "The underlying supply-demand imbalance and flawed market design greatly facilitated the ability of certain market participants to engage in manipulation". There was no single root cause of the 2000-2001 energy crisis, but there was a serious economic crisis whose ramifications will be felt for years to come.

7. Do current and proposed [market power] mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California?

- Investment in new generation and transmission infrastructure requires stability in the regulatory and market environment into which these investments will be made. That stability is sorely lacking at present, and as a result, the financial condition of many of the market participants, merchant and regulated alike, makes new investment more difficult and costly. Current market power mitigation measures are generally reasonable and contribute to a stable market environment that helps encourage investment. Regulatory stability is also a critical factor in gaining the confidence of credit rating agencies to grant creditworthiness to infrastructure providers and for lenders to provide investment capital.

8. In areas that the CAISO has identified in which specific generators have local market power, should [local market power] mitigation measures differ from the rest of the State? If so, how?

- SCE favors the CAISO proposed methods for mitigating local market power in conjunction with CAISO-wide market power mitigation measures. These proposed methods include local market power mitigation through the use of Locational Marginal Pricing to transfer the management of "intra-zonal congestion" from real-time to day-ahead and the substitution of generator market-based bids with cost-based bids where local market power is exercised.

- Transmission investment can also help alleviate local market power by enhancing local grid reliability and/or relieving congestion conditions.

9. How important is it that the CAISO coordinate its market design efforts with the surrounding States?

- Coordinated market design efforts are important to California and the west since the west is effectively one large market and California power imports affect the price of energy throughout the west.
- The form of this coordination should be in dealing with transaction issues at the interface points between RTOs ("seams" issues) such as congestion management, the pricing of transmission wheeling service, market monitoring responsibilities, transmission scheduling, a transmission planning process for regional needs and compatibility of IT systems. California already has had a "competitive market" structure in place since 1998, and its new market design is scheduled to be implemented over the next year or so. California's new market design is intended to fix several deficiencies in the current market structure (e.g. no effective congestion management solution, no day-ahead market) and should be implemented as soon as possible. The other western states have yet to implement a competitive wholesale market design, and they may be 3-5 years away from such an implementation. California should not wait until the other western states have completed their market design work before proceeding with its own improved market design elements to solve its market structure problems.

10. Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnection?

- No, CAISO is currently coordinating its market design efforts through the Seams Steering Group – Western Interconnection (SSG-WI) to address market design issues between the CAISO, RTO West, and WestConnect RTO. As noted above, the CAISO must proceed with implementation of its improved market design on an earlier timeline than the other two RTOs.

11. Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

- SCE believes that market monitoring and mitigation should be done on an ISO/RTO basis with coordination and cooperation between the various market monitors in a region. SCE believes this to be prudent because the Western Interconnection is truly three different sub-regions with unique operating characteristics and needs. This uniqueness requires market monitors that would specialize in a particular sub-region and that would confer with the other RTO/ISO monitors on regional issues.

12. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability?

- SCE supports the policy of open access transmission and believes that it helps in enhancing electricity supply reliability by increasing the depth and liquidity of electricity markets. SCE also believes that such a policy has a positive effect on new generation investment. However, open access transmission alone will not increase competition or encourage new investment in generation. Transmission investment is sometimes needed to provide additional delivery capacity to reduce congestion for generators that are and will be connected.

13. Does [open access transmission] encourage investment in new, environmentally beneficial generation?

- Investment in environmentally beneficial generation is encouraged by open access transmission to the same extent that any other generation is.

Sempra Energy™

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April 1, 2003

The Honorable Doug Ose
Chairman
Subcommittee on Energy Policy,
Natural Resources and Regulatory Affairs
2157 Rayburn House Office Building
Washington, DC 20515-8143

Dear Chairman Ose:

Thank you for continuing your efforts to provide Congressional oversight of the Federal Energy Regulatory Commission's proceedings to reform the California wholesale electricity market. Reformation of the existing market design is essential if California is to avoid future events similar to the 2000-2001 crisis. The original California market design was a material cause of the market's inability to maintain competitive pressure when stressed with supply scarcity, and also hindered the ability of state and federal regulators to discern effective corrective action to mitigate the severity of the financial distress. We are approaching two years since the crisis subsided, but the underlying problems remain largely unresolved, and California – indeed the entire western electricity market – remains at risk. FERC is making steady progress in its various investigations and refund proceedings, but the intense focus on these "past" matters is distracting attention and resources from "future" matters that must be addressed if California is to be served by a safe, reliable electric system that can support a job-creating expansion of the California economy.

Clearly, the current pace of reform is lagging behind the very real threats posed by disorderly coordination of the short-run electricity markets, insufficient supply and transmission capability, and disingenuous attempts to shift blame for the unsatisfactory results produced by California's version of competitive wholesale electricity markets. To address the problems that are within its control, the California Independent System Operator (CAISO) has proposed a comprehensive overhaul of its software and protocols to bring its tariffs into general conformity with the market coordination practices of the successful eastern electricity markets. Sempra Energy is participating in the various stakeholder activities associated with this effort, known as Market Design 2002 or MD02, and frequently expresses its views at the CAISO and FERC on the merits of various component parts of MD02.

Sempra Energy has long advocated that the core elements of the PJM market design are necessary design features of any well-functioning wholesale electricity market. Security-constrained, least-cost dispatch using locational marginal pricing (LMP) establishes

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competitive incentives that are consistent with the reliability requirements that every grid operator must observe. Indeed, we know of no adequate substitute for this package of design elements that is capable of coordinating efficient and effective competition during the last 24 hours prior to real time. We therefore advocate adoption of the PJM market design elements as part of every wholesale electricity market design.

Regarding the questions you have posed about specific elements of MD02, Sempra Energy responds as follows:

> Question 1. Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

Sempra Energy believes that the CAISO's stakeholder process can be improved by consolidating many of the discussion groups and adopting more formal protocols, but we do not subscribe to the notion that the CAISO has refused to listen to stakeholders that hold contrary views on the core MD02 elements, such as LMP. Rather, the CAISO staff is working under a sense of urgency based on its knowledge of the very real inadequacies of the current market design and software. Recently, the CAISO's vice president of operations told the CAISO's Market Surveillance Committee that the CAISO's current software must be entirely replaced, because poor design and "400 patches" had left his operators with "paper and pencil" tools to manage the system.

Under these dire circumstances, it is quite reasonable that the CAISO staff would narrow its focus to design elements that have been extensively road-tested in the competitive electricity markets in the northeast, because these markets have pioneered market designs that work in both practice and theory. The CAISO staff and most of the California stakeholders want to fix California's failed system, but a few stakeholders and public officials seek further delay. Sempra Energy does not look favorably upon those that advocate delay, because we believe the risk of delay is real and the benefits illusory. A governing board that was perceived by all to be independent from both commercial and political influence would be better able to provide decisive leadership in implementing the necessary reforms, but Sempra Energy is unaware of any specific actions that the current board has taken to deny stakeholders an opportunity to be heard.

> Question 2. Should the sequencing of MD'02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

Sempra Energy does not recommend changing the sequencing of MD02 implementation, nor do we believe that any of the various MD02 phases are unneeded and can therefore

be dropped from the overall reform effort. But if it were necessary to re-visit the sequencing decisions in order to ensure a more orderly implementation, Sempra Energy would have the CAISO prioritize its reforms to address first the real-time markets, then the day-ahead markets, and lastly the long-forward markets that deal with resource adequacy issues. The most fundamental task assigned to the CAISO is to use the short-run energy and ancillary markets to ration scarce transmission resources while keeping the system reliable and in balance. Key to this function is the use of accurate clearing prices to settle each injection to and withdrawal from the grid, which requires the use of LMP to capture the marginal effects of congestion and losses in the clearing prices.

The successful PJM market followed this approach and focused first on the real-time market, not implementing its day-ahead energy market until after the real-time market was fully functional. But given the extensive learning that has occurred in the eastern markets, and the very real risks confronting California until its market coordination protocols catch-up to the eastern standard, Sempra Energy believes the CAISO should pursue a quick and complete adoption of the new market design, sequencing its MD02 reforms only to the extent necessary to ensure cost-efficient implementation of the new software regime. To the extent that the CAISO intends to implement long-forward resource adequacy measures, this work can proceed in parallel with the efforts to create efficient real-time and day-ahead markets as long as the short-run design elements are respected.

> Question 3. The crisis of 2000-01 was, at root, caused by lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

There are several reasons why new supply is being deterred from entering the California wholesale market – extensive litigation stemming from the recent crisis, including broad legal attacks on recently-signed forward contracts; a generally hostile political and regulatory environment toward the merchant energy sector; continuation of historic state regulatory policies that prevent load-serving entities from adopting prudent risk management policies; and general turmoil and financial weakness in the electric merchant industry. Beyond these macro forces, there are specific "market power mitigation" measures being incorporated into the CAISO's tariffs that will suppress scarcity rents and keep short-run prices below the long run marginal costs of new generation. With short-run energy prices below levels that will support new entry, California will be able to avoid future supply short falls only by adopting some form of a mandatory resource adequacy requirement to ensure that load-serving entities build or contract for sufficient supply.

Sempra Energy, of course, recognizes that generators that possess local market power must not be allowed to bid freely in the short-run energy markets unless that market power has been mitigated. We prefer that local market power be mitigated through pro-

competitive means, such as financial contracts-for-differences (financial divestiture) between the generator and local load serving entities. Other market power remedies, such as bid caps, can give rise to physical withholding concerns and thus prompt intrusive investigations into plant outages, whereas generators under financial contracts have their profit-maximizing objectives naturally aligned with competitive outcomes. In the absence of efficient forward contracting, generators with local market power will have to accept restrictions on their freedom to bid into the short-run markets. There are various formulas for crafting bid caps; perhaps the most pro-competitive approach would be to establish bid caps at a given location by using the fixed and variable costs of a new combustion turbine to serve as a proxy for competitive behavior.

> Question 4. How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

In the broadest sense, there is only one wholesale electricity market in the western interconnection, so the FERC is quite correct in pursuing policies that seek to coordinate a seamless version of this market. The FERC has now developed a coherent, standard market design that shares the same core elements with MD02. Failure to implement these core elements throughout the western interconnection will diminish competition, harm consumers, and generally impede interstate commerce in electricity. Thus, the solution is not to return California to the primitive, hodgepodge of control areas that characterizes the remainder of the western interconnection; rather, the solution is to standardize operations of all western transmission facilities, which are currently subject to diverse and sometimes conflicting forms of regulation.

Sempra Energy would prefer that all of the western interconnection operate under a single Regional Transmission Organization (RTO) deploying a short-run market design similar to what the FERC has described in its SMD rule. Short of a single RTO, Sempra Energy believes three western RTOs (with a reformed CAISO being one of these RTOs) operating under SMD principles can be made to work. Thus, we believe the FERC should insist that the emerging WestConnect and RTO West organizations adopt market designs that contain the same core elements that are contained in the MD02 and SMD proposals.

> Question 5. Should market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

California is not, and can never be, an energy island – it relies upon the broader western market for a significant portion of its electricity. Accordingly, Sempra Energy supports creation of one market monitoring body to oversee the wholesale western market, even if that one underlying market is coordinated by multiple regional operators. One regional market monitoring institution aligned with the scope of the market itself will offer the best prospects for decision making and guidance that is consistent with the needs of the market and thus in furtherance of the overall public interest.

Question 6. Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

The transmission grid has now matured from local networks into regional networks that allow more powerful concepts – integration, efficiency, and standardization – to be deployed in extracting its full intrinsic value. The FERC, starting with its inquiry on transmission pricing in the mid-1980s, has been steadily evolving its regulatory policy initiatives in an effort to rationalize the use of transmission facilities in ways that would best serve the overall public interest. Gradually, the FERC has come to recognize that the highest and best use of the transmission grid is to support open access to fully competitive wholesale electricity markets.

Non-discriminatory, open-access to electric transmission facilities requires that two barriers to competition be hurdled – balkanized operations and inefficient transmission pricing. The core elements shared by MD02 and the SMD rule propose a workable solution to both problems – regional operators to consolidate grid operations under one standard tariff across large geographical areas, thereby greatly simplifying the ability of buyers and sellers to transact short and long-term business; and efficient locational marginal pricing linked to the underlying physics of the grid to enable the grid operator to rely upon market-based protocols to keep the electric system reliable and in balance. If these core design elements are missing, consumer interests will continue to be sacrificed through misplaced reliance on non-competitive solutions to the investment, operational, and reliability issues confronting the industry.

The matters that you will be addressing in upcoming hearings on MD02 are important to the welfare of all Californians, so I commend your efforts and hope that all involved public officials will work constructively to implement in California a fully competitive wholesale electricity market. I urge you to stress the importance of quick and effective implementation of the MD02 project – market participants cannot make the needed commercial and investment decisions in the face of so much uncertainty and recrimination. Creation of competitive electricity markets serves the broad public interest, so please do not hesitate in requesting assistance from Sempra Energy in furtherance of reaching this goal.

Respectfully,

Frederick E. John

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April 4, 2003

The Honorable Doug Ose
Chairman, Subcommittee on Energy Policy, Natural Resources
and Regulatory Affairs
United States House of Representatives
2157 Rayburn House Office Building
Washington, D.C. 20515

RE: California Market Design 2002

Dear Chairman Ose:

We are pleased to respond to your letter dated March 24, 2003.

Williams appreciates your continued diligence in understanding the causes behind the electricity crisis experienced by California. We also appreciate your efforts to improve market rules so that consumers can receive the efficient, reliable service they expect and deserve.

Williams is a member of the California Independent Energy Producers and generally supports the IEP response to your inquiry. We offer the following comments of our own.

1) Question: Many stakeholders have complained that FERC and the CAISO have not adequately listened to their views on market design. What can FERC or the CAISO do to improve the stakeholder process? Should a formal stakeholder committee be created to discuss difficult issues and make recommendations to the CAISO board? Is the lack of independence of the CAISO board a hindrance to the stakeholder process?

Response: Williams has seen some improvement in the processes used to develop the MD02. FERC staff participation has been useful and the CAISO staff has demonstrated a greater willingness to receive and respond to input from market participants. However, Williams continues to believe that the CAISO's lack of independence is a significant obstacle to the effective operation of a competitive power market in California. The present composition of the CAISO Board of Governors does not meet the independence requirements of the Commission's orders; indeed, FERC has sued the CAISO in federal court in an effort to force the CAISO into compliance with its governance orders. This lack of independence on the part of the CAISO and its overt control by the State of California have given rise to a host of issues that can only be remedied by

restoring the CAISO's independence. As long as the CAISO must first be concerned about the political agenda of California state officials and is obligated to focus on California as if it were an island, it is unlikely that solutions or the pace of progress will be optimal. Williams urges you to lend your support and influence to establishment of a truly independent board, which is properly focused on integrated solutions for the West, including California. To be blunt, it appears that the CAISO is precluded from working toward timely and efficient solutions truly reflective of consensus input from market participants – as reflected by the continuous failure to meet established deadlines, by tariff filings that lack stakeholder support, and by a less than rigorous schedule of meetings to resolve the long list of issues still considered to be unresolved.

This lack of independence also hampers, if not entirely negates, the effectiveness of the CAISO's current stakeholder process. In other ISOs, stakeholders compromise to reach an agreeable solution. At this point there is no real compromise in the CAISO's stakeholder system. Quite the contrary – frequently, stakeholders in the CAISO are presented with a proposal that was developed without their input, and that proposal is often indistinct from the final action that the CAISO attempts to implement. The CAISO stakeholder process may seem to feature a reasonable approach --- presentation by the CAISO of a proposal, the solicitation of comments via in-person meetings, conference calls, written comments, pre-established template questions and on-line forums, concluding, typically, with a very limited amount of time to offer final comments. Typically, however the end result is adoption of a proposal that fails to take most comments or criticisms into consideration. Indeed, while the CAISO Board accepts presentations from its staff with regard to a given proposal, minority opinions and alternative proposals cannot be presented to the Board for consideration. Williams supports the formation of an official stakeholder process, so that a truly independent Board can hear bonafide stakeholder proposals and receive an objective report on minority opinions and alternative proposals.

2) Question: Should the sequencing of MD02 phases be changed to reflect the needs of an energy market? Specifically, should resource adequacy issues be resolved before other important issues, such as dispatch procedures or congestion management, are completed?

Response: The MD'02 has many critical market design elements that can be implemented sequentially. Williams supports the sequential approach, provided that that such an approach is informed by a meaningful stakeholder process.

Dispatch protocols and agreement on the scheme for congestion management are critical matters that must be resolved as a matter of primary urgency. However, decisions on resource adequacy cannot be postponed. Capacity obligation or resource adequacy and congestion management both are critical elements of a market design aiming for long term efficiency and a competitive market. Along with many others, Williams is concerned that California may not be more than one cooling season away from another supply shortage, which means that

market-based incentives to stimulate and attract investment in infrastructure, including generation and transmission, must be implemented immediately.

A State-managed CAISO may be precluded from endorsing or presenting market design that includes the necessary emphasis on resource adequacy, however, because of a demonstrated bias toward utility investment in both generation and transmission. Williams does not oppose the notion that investor-owned utilities may choose to invest in either transmission or generation, but asserts unequivocally that the resource planning guidelines reflected in the FERC's SMD proposal – which emphasize *regional* planning and a level playing field for merchant and ratebased investment – offers consumers the most timely and cost-effective approach to adding resources.

3) Question: The crisis of 2000-01 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage or discourage investment in new power generation and transmission infrastructure in California? In areas that the CAISO has identified in which specific generators have local market power, should mitigation measures differ from the rest of the State? If so, how?

Response: Williams agrees that the primary cause of the 2000-2001 price spikes was a supply/demand imbalance. Price mitigation schemes alone fail to address the root causes of the problem. Market rules must provide proper signals to stimulate new investment in response to growth in demand and the need to replace aging facilities.

The solution to load pockets includes objective regional resource planning, appropriate resource adequacy policies, restrained and reasonable price mitigation, as well as expedited citing procedures. It is essential that resource adequacy programs be in place or any price mitigation scheme will discourage investment in new infrastructure. Williams notes that the CAISO has identified certain zones which are susceptible to market power, yet the CAISO continues to reduce its inventory of reliability must run agreements ("RMR"). Given that a primary purpose of RMR contracts was to mitigate market power, this pattern sends a conflicting and counterproductive signal. If market power is an issue such that price mitigation is necessary, a capacity commitment, in the form of RMR contracts, also is in order.

It is absolutely useless to finesse price mitigation rules without some form of capacity market, supported by expedited citing processes. During the 2000-2001 price spikes, Williams spoke out in favor of interim price mitigation, with certain caveats. Today Williams is willing to support price mitigation that is triggered in and sustained through true peaking situations where objective criteria indicate that a true load pocket exists. As Williams has commented previously, it is important that objective standards for defining localized shortages are established, which may reflect after-the-fact analysis of supply demand balance factors in appropriately defined locales, before prices can be retroactively mitigated. As the IEP paper suggests, price mitigation must be pegged to the cost of new investment.

Further, Williams and others have offered that no price mitigation should be sanctioned unless realistic demand management programs are in place. Williams is pleased to observe that California has realized some success with its demand management programs.

4) Question: How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?

Response: Despite its tendency to develop market rules and structures which would suggest otherwise, California is not an island in terms of power flows. The western transmission grid is designed and operated so that resources can be moved freely to take advantage of the resource and seasonal peak diversity.

The regional planning feature of the FERC's SMD proposal offers the best hope for integrated resource planning and market development, which is the solution to efficient energy markets. While the FERC seems willing to allow at least three RTOs to move forward in the West, Williams believes the importance of region-wide resource planning and market development cannot be overstated. The most obvious concern at present is the possibility that different congestion management schemes will be developed. Reasonably similar market designs, including congestion management schemes, price mitigation policies, energy products, etc. are vital if seams and rate pancaking are to be eliminated.

In fact, the California MD02 initiative, with certain enhancements as advocated by stakeholders, does represent real progress toward an effective market design. This progress will be wasted without the integration of the three RTOs in the west. As an example, WestConnect's current proposal does not include a day-ahead market, LMP, CRRs or other important elements outlined in the FERC's SMD. Similarly RTO West does not feature a day-ahead market and has a quasi-LMP and semi-CRR model. The Seams Steering Group—Western Interconnect (SSG-WI) is charged with addressing what in effect are new seams issues arising from these and other important differences. In addition to the obvious delay introduced by the need to resolve these basic design differences – in areas already addressed by the FERC's SMD recommendation – this group lacks the enforcement authority which ultimately might be necessary.

Clearly, the West is an interdependent energy market – California is still dependent on the hydro resources of the Northwest, and similarly the Northwest needs the California market to operate its resources efficiently. It is essential that the West coordinate its market design, although Williams would caution against delaying the CAISO MD'02 in an effort to achieve this coordination. Instead, the FERC should be supported and encouraged to exercise its jurisdiction and legal authority to resolve certain market design issues that threaten region wide solutions. In large part, delay in the region still reflects political opposition to the notion of common market rules and political – rather that fact-based technical –

opposition to SMD. The region risks repeated crisis and persistent inefficiency as long as this political protest is allowed to take precedence over progress to rational market development.

5) Question: Should the market monitoring and mitigation issues be decided on a regional, rather than on California-only basis?

Response: Williams believes that market monitoring and mitigation should be performed on a regional basis. Further, Williams is on record as recommending the importance of true independence for the market monitoring function. Certainly a market monitor that reports either to management of an ISO/RTO or to a board which is not independent cannot be expected to provide truly objective and balanced performance of this important function.

Needless to say, region-wide market monitoring suggests very similar market designs and a price mitigation system that is common across the region. A physically interdependent region should, in fact, have price mitigation that is common across the region. Williams has and will continue to honor market rules and tariffs, but inconsistent price mitigation and parochial pricing procedures which do not recognize physical markets and rational power flows are inappropriate.

6) Question: Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?

Response: Competition in the electricity market relies on many variables such as trading models, appropriate price regulation, transmission access and cost, fuel availability, transmission capacity, etc. They are all important elements in a strong, competitive market. A sound, open transmission access policy will increase competition as well as efficiency in the electricity market. With balanced market rules strong competition will encourage new investment to either add new generation or to repower existing units.

Clearly, granting broad access by generation resources to the widest market is the best way to offer the full range of that capacity to consumers. A fairly and efficiently operated grid enhances reliability and cost-efficiency. Also, the promise of broad access to the widest portion of the market is a major factor in new investment decisions.

If you should have any questions, please contact me at 918-573-4608, Alex Goldberg, Assistant General Counsel, at (918) 573-3901, or Glenn Jackson, who has responsibility for coordinating our federal legislative efforts, at (202) 833-8994.

Respectfully submitted,

William E. Hobbs
Sr. Vice President
Williams Energy Marketing & Trading

PRESS RELEASE

New manifesto urges state to let market forces rebuild California's power industry
31 January 2003

By Ute Frey, Haas School of Business

Berkeley - A manifesto, signed by an ad hoc group of 20 people -professors from the University of California, Berkeley, UCLA and Stanford University, plus consultants and former regulators - urges policymakers to move swiftly and vigorously toward a market-based restructuring of California's electricity industry.

Failure to reform the industry will only compound California's energy problems, say the manifesto's signatories.

"While wholesale electricity prices have moderated, and California no longer faces the risk of blackouts, in many ways the industry is in worse shape now than it was at the start of 2001," the manifesto says. "Electricity rates today are 40 percent higher than at the start of the industry's restructuring, state regulation is increasing, and once vibrant generators and utilities struggle for solvency."

Since the 2001 electricity crisis, two California utilities have become insolvent, the state has entered long-term contracts to buy electricity at exorbitant rates and the electricity trading industry has gone into near collapse. Meanwhile, the confidence of electricity reformers around the world has been shaken, and initiatives to introduce competition outside California have been delayed, according to the manifesto.

Experts in regulatory and energy economics, who organized under the auspices of UC Berkeley's Institute of Management, Innovation & Organization (IMIO), generated the manifesto.

"It is not easy to get consensus amongst such a disparate group," said David Teece, Mitsubishi Bank Professor of International Business and Finance at UC Berkeley's Haas School of Business and director of IMIO. "We have come together because we are concerned with the conflicting policy directions being pursued for the industry at the state

and federal levels. "

This is the second such manifesto from IMIO on the energy crisis. The first manifesto was published in response to severe electricity price hikes and rolling blackouts in January 2001. It strongly recommended against long-term procurement contracts, which Gov. Gray Davis ordered the Department of Water Resources to sign.

"California would be a lot better off today if our advice had been heeded," said Teece.

This latest manifesto proposes that the state take the following steps toward recovery:

- Vigorously develop competitive markets
- Reassemble a functional set of electricity oversight rules and policies
- Limit regulation to those functions the market cannot perform efficiently
- Allow unregulated producers to provide electricity generation
- Clarify the jurisdiction of federal and state agencies to avoid further delays in the restructuring of electricity markets
- Rebuild the commodity market for power, and allow consumers and suppliers to enter into long-term contracts
- Implement real-time pricing of electricity

"We encourage the state to realize that the energy crisis was the consequence of a flawed regulatory design and of misguided decision-making at the time of the crisis, rather than the result of any inherent inability of electricity markets to work," say the manifesto authors.

The signatories of the "2003 Manifesto on the California Electricity Crisis" include Vernon Smith, a Nobel Laureate in economics from George Mason University; professor James Sweeney from Stanford University; professors Harold Demsetz, John Riley and Richard Rumelt from UCLA; professor Pablo Spiller from UC Berkeley; and Mitch Wilk, former president of the California Public Utilities Commission.

The 2003 manifesto and its list of signatories is available on the IMIO Web site.

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MANIFESTO ON THE CALIFORNIA ELECTRICITY CRISIS

January 30, 2003

PREAMBLE

We, the undersigned, an ad-hoc group of professionals with experience in regulatory and energy economics, share a common concern with the continuing turmoil facing the electricity industry ("the industry") in California. Most of us endorsed the first California Electricity Manifesto issued on January 25, 2001. Almost two years have passed since that first Manifesto. While wholesale electric prices have moderated and California no longer faces the risk of blackouts, in many ways the industry is in worse shape now than it was at the start of 2001. As a result, we continue to have a deep concern with the conflicting policy directions being pursued for the industry at both the State and Federal levels of government and the impact the uncertainties associated with these conflicting policies will have, long term, on the economy of California.

We have once again convened under the auspices of the Institute of Management, Innovation and Organization at the University of California, Berkeley, to put forward our own ideas on a basic set of necessary policies to move the industry forward for the benefit of all Californians and the nation. We again do not pretend to be "representative." We bring, however, a very diverse range of backgrounds and expertise.

MANIFESTO ON THE CALIFORNIA ELECTRICITY CRISIS

The Crisis and Its Shock Waves

The California electricity crisis sent shock waves felt far beyond the electricity markets in the western United States. Public officials, academic experts, and electricity customers across the nation and abroad reacted with incredulity to the sustained high prices, shortages and blackouts that afflicted California, and the rapid descent into insolvency of its two largest electric utilities. In response to the crisis, the State intervened in the market place, underwriting huge new obligations and encumbering the State with substantial costs for many years to come. Price fluctuations may have been amplified by the individual and sometimes dubious market strategies of some of the generators and marketers. Much of this behavior is now being investigated.

The electricity crisis engendered a financial crisis as a major utility went into bankruptcy and the electricity trading industry went into near collapse. As a result of the California crisis and its aftermath, the confidence of electricity reformers throughout the world has been shaken and initiatives to introduce competition in other jurisdictions have been delayed, which in some circumstances may be advisable.

The crisis began when California suffered a remarkable confluence of adverse circumstances that would have strained any electricity system. In 2000, summer heat waves, inadequate generation capacity and shortages of critical hydroelectric power, combined with flawed market rules and strategic behavior, led to unanticipated high wholesale spot prices during the peak summer months. This situation was followed by skyrocketing prices for natural gas, the fuel needed for the generating capacity the industry was relying on to make up the lost hydroelectric output. High natural gas prices combined with concerns regarding the solvency of the State's two largest utilities, and the issues identified above, drove wholesale prices even higher during the historically off-peak fall and winter months. With California's major utilities unable to pass these costs onto their retail customers, this long period of high spot prices was financially disastrous for them. This outcome would have been mitigated, however, if the California utilities were not relying on the spot market for over 50 percent of their electricity supplies.

By the fall of 2000, the resulting financial crisis facing the State's two largest electric utilities called for immediate and decisive governmental action. Because of regulation, the utilities were

not allowed to raise prices to recoup their higher costs. Because no timely, or adequate action was forthcoming, at either the State or Federal levels, the State's two largest electric utilities became insolvent. With the utilities no longer financially able to purchase power for their customers, the State replaced them as the main buyer of electricity in the marketplace. Faced with extremely high spot market prices and insolvent utilities, and with limited experience in buying electricity, the Department of Water Resources (DWR) was ordered by the Governor to embark upon an immense, long-term commitment to electricity contracts to reduce the State's reliance on the spot market.

The First Manifesto strongly advised State officials not to follow this procurement strategy, given the volatile and high prices in the electricity markets at the time. A little more than a year after these contracts were signed, there is growing concern about the level of take or pay commitment made by DWR and the level of risk premium implicit in those contract prices. The end results are that California's major electric utilities consumers' rates now stand 40 percent higher compared to the level at the start of restructuring, the level of State regulation is increasing instead of decreasing, and utilities and independent power generators struggle for solvency amid a maelstrom of acrimonious litigation.

It did not have to be this way. Many experts and the first Manifesto warned of the critical dimensions of the crisis and offered useful prescriptions for reducing its damage. These warnings were largely ignored.

Irrespective of the policy errors of the past, California must move ahead to reassemble a functional set of electricity oversight rules and policies. To date, little has been accomplished. Litigation and recriminations about the crisis are absorbing a tremendous amount of attention and contributing little to forward-looking solutions. Wholesale market reforms are being actively resisted by some California regulators and other stakeholders, while only vestiges of the competitive retail market remain -- in the form of a few direct access customers.

Not all of the shortcomings belong with public officials. The facts may show that the trading strategies adopted by some of the participants in California's electricity and natural gas markets contributed to the increases in spot prices. These firms may have violated their fiduciary obligations to their shareholders and quite possibly broke the law. Lastly, their actions have contributed to delay in the important goal of market deregulation.

In the months ahead, critical public policy decisions will soon be made that will shape the future of California's electricity industry. We have come together again with the strong belief that the California crisis reflects the consequence of flawed regulatory design and of misguided decision making at the time of the crisis, rather than a result of any inherent inability of electricity markets to work. Therefore, our purpose is to affirm key principles and reform opportunities that we all agree must not be lost.

KEY PRINCIPLES AND REFORM OPPORTUNITIES

1. Rely on Markets Whenever Possible

There is a new conventional wisdom that blames the electricity crisis on "deregulation," and argues for comprehensive governmental control as the solution. That assertion draws a lesson from "facts" that aren't true. Most of the economic harm due to the crisis could have been avoided if laws and regulations had allowed utilities and customers to protect themselves from market risks. In particular, economic losses due to the crisis would have been greatly reduced if the utilities had not been required by regulation to rely on the spot markets for over 50 percent of their supplies. Regulations established by the State and the PUC discouraged the utilities from entering long-term power purchase contracts to cover their electricity needs, needs that were created by the power plant divestitures that the California Public Utilities Commission and other market participants believed would assist in establishing wholesale market competition. However,

when spot prices went through the roof, the utilities were not allowed to recover their costs from ratepayers due to concerns about the short-term political consequences.

What matters now is to distinguish between situations where regulation is necessary to control monopoly-type behavior from other situations where market decisions can be successfully delegated to investors and consumers, as is the case in countless other industries. Where market forces can be harnessed, private arrangements will advance consumer welfare in electricity. Where regulation is necessary, it should be limited only to those functions markets can't perform efficiently. We elaborate below on critical areas in which California's energy future desperately requires the discipline of market forces, while acknowledging that careful market design is very important (wholesale electricity markets cannot design themselves), and that transitional market protections such as bid caps may be desirable to address market power concerns and restore public confidence in reforms.

Thus, our first prescription is an affirmation. We believe that California will compound policy errors if it swings back to comprehensive governmental command and control of the electricity industry. Restructuring was an attempt to escape the past costs of such interventionist government policies and to harness competition for the public benefit. Despite the recent experience, we believe that the development of competitive markets should still be vigorously pursued.

2. Rely on Competitive Procurement to Meet California Electricity Needs

California will benefit if electricity generation is provided by unregulated producers. A competitive unregulated industry will minimize costs and bear investment risks more effectively than any regulated monopoly or government owned generating facilities.

The generation of electricity is not a natural monopoly. Generation is inherently competitive, and should be recognized as such by market rules governing the industry. Any sizeable electricity market can support dozens of individual power plants of efficient scale. Entry can also be facilitated with rules that encourage new investments while protecting consumer and environmental interests. The operation of these power plants can be coordinated over the electricity grid by an independent systems operator without requiring the control of a single owner. Technology is also expanding producers' options further through distributed generation and micro generation.

History has shown that the economic regulation of potentially competitive industries often raises costs and distorts the industry to the detriment of consumers and the economy. Government has no unique expertise in building and operating power plants to outweigh the inefficiencies associated with government ownership and operation. Assuming a reasonable set of market rules, reliance on investor owned generators, exposed to market discipline and private responsibility for errors and losses, is better than the alternative of cost-based regulation of generation.

Private participation and investment in the California electricity market will be more readily forthcoming if the existing uncertainties about market policies, State purchasing commitments and the protracted litigation revolving the 2000 California energy crisis are resolved. The State would benefit from rapidly resolving all those outstanding issues. Although litigation takes its time, the State should promptly signal to potential investors its determination to remove itself from intervening in a properly functioning marketplace. Agreements on new market rules, improved governance and organization for the dispatch center and the restoration of the financial health of the State major utilities would substantially improve the investment climate in California, and open the way for regenerating private sector participation in its energy sector.

3. Clarify Jurisdiction of State and Federal Agencies

Electricity knows no political boundaries. The need for coordination of state, regional and federal policies should be a paramount objective of all states in the nation. In a Federal nation such as

ours, conflicting policies naturally occur. California, however, may be paying the price of lack of policy coordination driven by institutional jurisdictional divisions and political turf battles.

It is fundamental that the crucial issues be identified and resolved so as to move forward with restructuring the state's electricity sector. Two issues are fundamental here. First, the conflicting assertions of jurisdiction by Federal Energy Regulatory Commission (FERC), the California Public Utilities Commission (CPUC) are delaying the resolution of key aspects of reconfiguring the insolvent utilities and restructuring the electricity market in California. The financial health of California's major electrical utilities will have to be restored before wholesale energy providers will contract with them. This crucial step is necessary for the utilities to become once again viable energy providers to retail customers, thereby allowing the State to withdraw from that role.

The questions of who pays for the large sunk costs created by the crisis has to be separated from how to create viable energy providers, empowered to purchase energy for California's consumers. These issues are fundamental to the restructuring of the industry. The long run performance of California's electricity market is contingent on their speedy resolution. The group also sees a need to clarify the jurisdictional role of Federal Energy Regulatory Commission when it comes to publicly (mostly municipally) owned utilities on issues such as market refunds. Second, the group feels a strong need for California to integrate, if not to completely consolidate, its electricity market institutions with those of the region. Although the group does not take a position on each and every jurisdictional issue, we believe an early resolution of these claims will greatly facilitate finding solutions to California's electricity market problems.

4. Encourage the creation of true commodity market institutions and promote their use

California's electricity crisis was caused in part by the failure of the electricity commodity market. Promoters of electricity deregulation attempted to create markets in electricity. The California market collapsed before its deficiencies could be remedied. The failure of the California market should not doom the effort to rebuild. To the contrary, properly functioning electricity markets are required for deregulation to succeed. Indeed, economic research has demonstrated that the development of commodity markets and forward contracting promotes greater competition and reduces the leverage of existing suppliers.

The key to the success of an electricity market is the ability of consumers and suppliers to enter into bilateral long-term contracts. Successful markets involve such participation. This can be accomplished in electricity markets by allowing large and small consumers to contract directly for long-term supplies at negotiated prices.

Successful forward contracting will promote investment in new generating facilities and expansion of distribution infrastructure in an orderly fashion, thereby preventing the occurrence of a future crisis. The state should support forward contracting and resist efforts to frustrate such developments. Specifically, the state under most circumstances should not prevent current consumers from shifting from traditional suppliers to new suppliers.

5. Implement Real-Time Pricing

Any structural model for the industry should include a mechanism for charging consumers for the cost of the production and delivery of electricity at the time of its consumption. Electricity at midnight in April is completely different from electricity at noon on a hot August day. In California, the former is cheaply produced from excess rainfall spilled over hydroelectric dams whose reservoirs are too full to contain it. By contrast, the latter demand must be met by high-cost power plants whose annual service may include just those few peak days. Yet, most California customers, including large industrial customers, are still charged for electricity as if its cost varies little throughout the year. Prices to most end users don't signal when electricity is cheap or dear for the industry to produce. Nor are consumers offered the true economic benefit of their conservation efforts at times of peak demand. Customers suffer further when unchecked peak demands grow too fast, pushing up costs for all. Wholesale electricity markets also become more

volatile and subject to manipulation when rising prices have no impact on demand. Indeed, a functioning demand side to the electricity market in California would have greatly reduced the likely private benefits, and consequent social cost, of any strategic behavior engaged in during the crisis.

The answer to this problem lies in technology and policy. California has already installed real time meters for most if not all of its larger customers. What remains is to establish sound policies. The politics of electricity pricing are the greater problem, including concerns about creating potential winners and losers among customers when usage is finally priced at its true, real-time cost. Regardless of other reform efforts that are pursued in California, real-time pricing or other forms of flexible pricing is a key to enhanced conservation, more efficient use of electricity, and the avoidance of both unnecessary new power plants as well as concerns about the competitiveness of wholesale electricity markets.

In Sum

The First Manifesto concluded calling the attention to the fact that "electricity should not be a political commodity. The laws of supply and demand cannot be ignored except at great peril." Today we reaffirm that belief. We encourage the State to realize that the energy crisis was the consequence of a flawed regulatory design and of misguided decision-making at the time of the crisis, rather than the result of any inherent inability of electricity markets to work. California should not be burdened with inefficient electricity institutions simply because it got the design wrong the first time around. Now is the time to get it right. Failure to do so will compound our problems.

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STATE OF CALIFORNIA

CONSUMER POWER AND CONSERVATION FINANCING AUTHORITY	ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION	PUBLIC UTILITIES COMMISSION

DRAFT ENERGY ACTION PLAN

California is a diverse and vibrant society. The fifth largest economy in the world, our population is expected to exceed 40 million by 2010. California's economic prosperity and quality of life are increasingly reliant upon dependable, high quality, and reasonably priced energy. Following the biggest electricity and natural gas crisis in its history, the State is well aware of the need for stable energy markets, reliable electricity and natural gas supplies, and adequate transmission systems. Looking forward, it is imperative that we have reasonably priced and environmentally sensitive energy resources to support economic growth and attract the new investment that will provide jobs and prosperity throughout the state.

California's principal energy agencies have joined to create an Energy Action Plan. It identifies specific goals and actions to eliminate energy outages and excessive price spikes in electricity or natural gas. These initiatives will send a signal to the market that California is a good place to do business and that investments in the more efficient use of energy and new electricity and natural gas infrastructure will be rewarded. Our approach recognizes that we currently have a hybrid energy market and that State policies can capture the best features of a vigorous, competitive wholesale energy market and renewed, positive regulation.

Our Goal

The goal of the Energy Action Plan is to:

> **Ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies, including prudent reserves, are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers.**

The energy agencies intend to achieve this through five specific means:

- Meet California's energy growth needs while optimizing energy conservation and resource efficiency and reducing per capita electricity demand.
- Ensure reliable, affordable, and high quality power supply for all who need it in all regions of the State by building sufficient new generation, including accelerating the State's goal for renewable resource generation.
- Upgrade and expand the electricity transmission and distribution infrastructure and reduce the time needed facilities before are brought on line.
- Promote customer and utility owned distributed generation.
- Ensure a reliable supply of reasonably priced natural gas.

We are Accountable for Stewardship of California's Energy Future

The State's principal energy agencies are committed to active and continued cooperation. This is unprecedented. To implement this Energy Action Plan we pledge:

- To discuss critical energy issues jointly through open meetings and ongoing informal communication.
- To share information and analyses to minimize duplication, maximize a common understanding and ensure a broad basis for decision-making.
- To bring joint policy recommendations about major energy issues to the Governor and Legislature.

The State needs to guide development of the energy system in the public's best long-term interest, to anticipate potential problems, and to make timely decisions to resolve problems. Specifically, we commit to:

- Provide decision-makers impartial assessments of the State's immediate and long-term electricity and natural gas demands, resources, and prices.
- License and, where appropriate, fund construction of new energy facilities that are consistent with the reliability, economic, public health, and environmental needs of the State.
- Restore the utilities' ability and obligation to serve, recognizing this is a critical component of the current hybrid energy system.
- Restore investor and private sector confidence in California's energy markets.
- Develop an "early warning" system to alert policy makers of potential future problems.
- Work with FERC to redesign market rules and prevent manipulation of the energy markets.
- Partner with governmental and other groups in western North America to pursue commonly held energy goals.

Shared Principles and Strategies Will Guide our Stewardship

Achieving the overall goal and implementing the proposed actions requires close cooperation between the State's energy agencies and means establishing and following common principles and strategies. In particular, we intend to use market forces and regulatory approaches to operate the system in the best, long-term interest of the public: the consumers, the ratepayers, and the taxpayers. This means our actions will attract private investment into California's energy infrastructure to stretch and leverage public funds and consumer dollars. We must also provide appropriate regulatory

guidance, price signals, and incentives to all consumers to use energy efficiently. We will moderate price increases, achieve rate stability, and provide affordable energy, particularly for low-income consumers, through progressive rate design.

To protect the public's health and safety and ensure our quality of life, we support the most cost-effective and environmentally sound strategies. We also will work to ensure that low income populations do not experience disproportionate adverse impacts from the development of new energy systems.

Our Approach Will be Open and Timely

Achieving the overall goal requires thoughtful planning, followed by specific, timely actions. This process begins with an ongoing assessment of the current and future energy system and the State's economic needs. It must consider a range of risks and uncertainties and must identify and inform policy makers of potential shortfalls and vulnerabilities. The agencies and State policy makers need to respond by carefully considering available options, balancing costs and benefits to meet State goals, selecting policy choices, and devising actions to implement those policy choices. The result must be a set of interrelated actions that complement each other, provide risk protection, and eliminate the costs and conflicts that would occur if we pursue isolated, uncoordinated objectives. Each agency will need to implement the action plan in its individual proceedings but in concert with each other.

The Action Plan envisions a "loading order" of energy resources that will guide decisions made by the agencies jointly and singly. First, we want to optimize all strategies for increasing conservation and energy efficiency to minimize unnecessary increases in electricity and natural gas demand. Second, recognizing that new generation is both necessary and desirable, we would like to see these needs met first by renewable energy resources and distributed generation. Third, because our preferred resources require both sufficient investment and adequate time to "get to scale", we will also support additional clean, fossil fuel, central-station generation. Simultaneously, we intend to improve the bulk electricity transmission grid and distribution facility infrastructure to support growing demand centers and the interconnection of new generation.

Energy Services are Growing, are Essential, and the Delivery Systems are Complex

As a context for this plan, Californians must realize the essential and complex nature of our energy resources. Currently the state uses 265,000 gigawatt-hours of electricity per year. This amount is growing 2 percent annually. Over the last decade, between 29 percent and 42 percent of our in-state generation came from natural gas. Another 10 - 20 percent was provided by hydroelectric power that is subject to significant annual variations. Almost one third of our entire in-state generation base is over 40 years old. Our transmission system is also aging and was not designed to handle the current loads or serve our shifting load centers. While in-state generation resources provide a majority of our power, California is part of a larger system that includes all of western North America. Fifteen to thirty percent of our electricity demand is served from sources

outside our state borders.

Peak electricity demands occur on hot summer days. Our highest peak demand was 52,863 megawatts and occurred July 10, 2002. Peak demand is growing at about 2.4 percent per year, roughly the equivalent of three new 500-megawatt power plants. The primary contributor (about 40 percent) to our combined residential and commercial summer peak electricity demand is air conditioning.

Our demand for natural gas also is increasing. Currently the state uses 2 trillion cubic feet of natural gas per year. Historically the primary use of this fuel was for space heating in homes and businesses. The electricity generation dependence on relatively clean-burning natural gas now means that our annual natural gas use by power plants is expected to increase. Overall, natural gas usage is growing by 1.6 percent per year. Eighty-five percent of our natural gas is supplied by pipelines from sources outside California.

Five Actions

We propose five sets of actions of critical importance that need to be undertaken now. These are:

I. Optimize Energy Conservation and Resource Efficiency

California should seek to decrease its per capita electricity use through increased energy conservation and efficiency measures. This would minimize the need for new generation, avoid environmental concerns, improve energy reliability, and contribute to price stability. Optimizing conservation and resource efficiency will include the following specific actions:

1. Implement a voluntary dynamic pricing system to reduce peak demand by as much as 1,500 to 2,000 megawatts by 2004.[1]
2. Improve new and remodeled building efficiency by 5 percent.[2]
3. Improve air conditioner efficiency by 10 percent.[3]
4. Make every new state building a model of energy efficiency.
5. Create customer incentives for aggressive energy demand reduction.
6. Provide utilities with demand response and energy efficiency investment rewards comparable to the return on investment in new power and transmission projects.
7. Increase local government conservation and energy efficiency programs.

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[1] Georgia Power achieved more than 5 percent peak savings as a result of their dynamic pricing tariffs. The composition of households, businesses and industries in California, however, is sufficiently different that achieving the same level of peak savings is unlikely within the next few years. California is actively evaluating and implementing such pricing systems in a CPUC rulemaking (R.02-06-011).
[2] The Energy Commission's 2005 building standards, to be adopted in 2003, when combined with training and enforcement, are expected to reduce energy needs in new buildings by approximately 5 percent.
[3] New federal appliance standards will increase air conditioner efficiency by approximately 20 percent, but if California is granted a waiver from Federal standards by 2007 based on California's drier-than-national-average climate, California air conditioner efficiency would increase another 10 percent.

II. Ensure Reliable, Affordable Electricity Generation

The State needs to ensure that its electrical generation system, including reserves, is sufficient to meet all current and future needs, and that this reliable and high quality electricity comes without over-reliance on a single fuel source and at reasonable prices. To these ends the State will:

1. Add new generation resources of 1500 - 2000 MW per year[4] to meet anticipated demand growth, modernize old, inefficient and dirty plants and achieve and maintain reserve levels in the 15 percent-18 percent range[5].
2. Add a net average of at least 385 MW of new renewable generation sources annually[6].
3. Finance a few critical power plants that the agencies conclude are necessary and would not otherwise be built[7]. An estimated 300 MW of peaking capacity located in critical areas is needed to provide local reliability, help achieve adequate reserves, and reduce congestion and the need for new transmission lines[8].
4. Monitor the electricity market to identify and correct any exercise of market power and manipulation, and improve FERC-established market rules.

III. Upgrade and Expand the Electricity Transmission Infrastructure

The State will reinvigorate its planning, permitting, and funding processes to assure that necessary improvements and expansions to the bulk electricity grid are made on a timely basis. At least three vital transmission corridors need immediate expansion: the main transmission system in central California (Path 15); the link between California and the southwest (Palo Verde-Devers); and the interconnection with the Tehachapi wind resource area.[9] As a part of this objective the agencies will:

1. Collaborate in the California Energy Commission's integrated energy planning process created last year by Senate Bill 1389 and utilize the results of this process to help determine the need for particular bulk transmission projects. This collaboration will build upon the Independent System Operator's annual

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[4] Peak demand growth is expected to be approximately 1,400 MW per year for the next two years, depending on temperature, weather and other factors. With uncertainty about how much power plant retirement will occur and how much of the anticipated new power will become available on schedule, the amount of new power needed is presented as a range.
[5] The Western Electricity Coordinating Council (WECC) has established minimum operational requirements of loss-of-load probability of no more than one day in ten years. Current information suggests that the WECC criteria can be met with approximately 15 – 18 percent reserve margins.
[6] Electricity sales by the Investor-owned utilities totaled about 169,000 GWh in 2001. The renewables portfolio standard requires an annual increase in renewable generation equivalent to 1 percent of sales, or about 1,700 GWh. Assuming a capacity factor of about 50 percent, this is roughly equivalent to 385 MW.
[7] The CPA has the authority to finance new power plants.
[8] The CAISO in 2002 identified generation-deficient areas and sub-areas within its control area, such as the greater Bay Area, Humboldt, Battle Creek and Vaca Dixon. Although some of these constraints may be solved by transmission improvements, it is more cost-effective to add new generation in some areas.
[9] The Public Utilities Commission is currently considering an application to expand Path 15 (A.00-04-###) and the federal Western Area Power Administration is advancing a transmission project for this region. The Public Utilities Commission is also investigating options for expanding transmission service to the Tehachapi wind resource area (I.01-11-011), with the active participation of the Independent System Operator.

transmission plan and evaluate transmission, generation and demand side alternatives.

2. Build sufficient new transmission lines to assure reliable, high quality power supply in all regions of the State.

IV. Promote Customer and Utility Owned Distributed Generation

Distributed generation is an important local resource that can enhance reliability and provide high quality power, without compromising environmental quality. The State should promote and encourage clean and renewable customer and utility owned distributed generation as a key component of its energy system. Clean distributed generation should enhance the state's environmental goals. Such resources are virtually guaranteed to serve California load. With proper inducements distributed generation will become economic.

1. Promote clean, small generation resources (under 20 megawatts), self-generation and cogeneration, located at load centers.
2. Exempt installations of clean technologies such as fuel cells, solar installations, and microturbines from all exit fees (but not bond fees) until they total 1 percent of the total generation market.
3. Value system benefits of distributed generation and any related costs.
4. Develop standards so that renewable distributed generation may participate in the Renewable Portfolio Standard program.
5. Standardize definitions of eligible distributed generation technologies across agencies to better leverage programs and activities that encourage distributed generation.

V. Ensure Reliable Supply of Reasonably Priced Natural Gas

The high and volatile price of natural gas contributed significantly to the energy crisis in 2000-2001, and concerns about manipulation of the market and scarcity persist. The Governor's Natural Gas Working Group was formed to monitor natural gas demand, supply and price issues and facilitate the construction of California infrastructure projects. Yet California remains vulnerable to the volatile spot market. We will pursue the following actions:

1. Identify critical new gas transmission, distribution and storage facilities needed to meet our future needs.
2. Monitor the market to identify and correct the exercise of market power and manipulation.
3. Evaluate the net benefits of increasing the State's natural gas supply options, such as liquefied natural gas.
4. Support electric utilities and gas distribution companies entering into longer term contracts as a hedge against volatile and high spot market prices.

While implementation of this Action Plan represents a challenge, it is an important step for the agencies to take together to help achieve the State's overall goal of adequate, reliable, and reasonably-priced electrical power and natural gas supplies.

STATE OF CALIFORNIA GRAY DAVIS, *Governor*

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

April 8, 2003

Honorable Doug Ose
Chairman, Subcommittee on Energy Policy
Committee on Government Reform
U.S. HOUSE OF REPRESENTATIVES
Washington, D.C.

Honorable Henry Waxman
Congressman
Committee on Government Reform
U.S. HOUSE OF REPRESENTATIVES
Washington, D.C.

RE: April 8th Hearing on FERC refund and California electric market design issues

Dear Chairman Ose and Congressman Waxman:

Thank you for holding this hearing on the status of the California energy markets, particularly the issues of 1) FERC-ordered refunds for energy purchases during the 2000-2001 time-period; and 2) the California Independent System Operator's redesign of the California wholesale energy market (known as Market Design 2002 or MD-02).

To assist the Committee in understanding these issues, the California Public Utilities Commission (CPUC) would like to offer the following comments, and if possible, have them included in the report of the Committee.

The CPUC is in an excellent position to present the public interest perspective on the energy issues facing California today. The CPUC regulates the three major investor-owned utilities in California that collectively:

- Purchase about 80% of the energy consumed within the California ISO
- Provide distribution services to about 90% of the customers (by load) in the ISO; and,
- Own the vast majority of transmission assets that comprise the current ISO grid.

Thank you for consideration of our comments.

Sincerely,

JAMES HENDRY
Strategic Planner

ATTACHMENT

COMMENTS OF THE
CALIFORNIA PUBLIC UTILITIES COMMISSION
BEFORE THE HOUSE OF REPRESENTATIVES
COMMITTEE OF GOVERNMENT REFORM
SUBCOMMITTEE ON ENERGY POLICY
APRIL 8, 2003

EXECUTIVE SUMMARY

INTRODUCTION

The California Public Utilities Commission (CPUC) regulates the three major investor-owned utilities in California[1] that collectively:

- Purchase about 80% of the energy consumed within the California ISO;
- Provide distribution services to about 90% of the customers (by load) in the ISO; and
- Own the vast majority of transmission assets comprising the current ISO grid.

FERC REFUND PROCEEDING

California is pleased with FERC's March 26th Staff Report that determined that California should be refunded about $3.3 billion in energy costs it paid due to the exercise of market power and market manipulation.

However, this decision still represents only the tip of the iceberg as to the amount of money that should be refunded to California. FERC currently has before it several outstanding issues and proceedings that could significantly change the amount of the refund to more accurately reflect the true cost of market power that California's economy and citizens had to bear over the past two years.

The following are areas where the CPUC and the State of California have recommended either changes to how FERC calculate refunds or remaining issues that FERC needs to address.

- Make refunds effective from May 1st, 2000, not October 2nd ;
- Apply the Refund Methodology to the State's energy purchases;
- Allow California to receive its rightful share of any refunds ordered for market manipulation found to have occurred in the Pacific Northwest energy markets;
- Find that long-term contracts entered into by California during this period were affected by market power manipulation
- Institute and diligently pursue the over 30 investigations (known as Order to Show Cause) into alleged market manipulation behavior proposed by FERC staff; and,
- Adopt FERC Staff recommended changes to FERC rules and market-based tariffs to prohibit further market manipulation

[1] Pacific Gas & Electric, San Diego Gas & Electric, and Southern California Edison

MARKET DESIGN ISSUES

General Observations

- California is strongly supportive of a workable, competitive, regional energy market , something that the Western states have voluntarily worked to achieve for over 20-years.
- FERC should focus on supporting voluntary efforts to improve coordination and provide the necessary framework, perhaps most importantly in the area of effective market monitoring and mitigation.
- FERC should not, and legally cannot, interfere into issues that are better addressed at the state level such as resource adequacy, transmission siting/planning, demand response, and ISO governance.
- "A one-size fits all" approach to market design is unwise, as even FERC realizes
- FERC should not "back door" its SMD proposal into the ISO's MD-02proposal and must allow California the flexibility it has granted to other Western RTOs

Improving the stakeholder process

- FERC should let the California ISO develop reasonable implementation schedules
- FERC should defer to the California ISO to develop a stakeholder process that provides parties with a chance for meaningful input
- FERC's various proposals in the SMD docket for RTO stakeholder boards and advisory commitees are heavily weighted toward parties seeking high energy prices and seriously lacking in input from consumer groups, end-users, and states.
- The current governance structure of the ISO Board, unlike its predecessor, is independent and represents the public interest.

Sequencing of MD-02 and Resource Adequacy

- FERC and the California ISO should focus on issues of wholesale market design
- Resource procurement is a state, not federal function being addressed in state proceedings
- This parallel approach epitomizes the cooperative state-federal approach to electric market redesign that FERC Commissioners have consistently advocated.
- In California this parallel approach has been proposed to FERC by the California ISO and is strongly supported by the CPUC. To date, FERC has not acted upon this request.
- More information is needed by stakeholders on the effects of Locational Marginal Pricing and allocation of Congestion Revenue Rights

California is addressing Resource Adequacy by

- Entering into $43 billion of long-term contracts and promoting the building of several thousand megawatts of new generation under long-term contract
- Having the investor-owned utilities resume the purchasing of their own energy needs;
- Developing long-term procurement plans.

The need for market mitigation measures

- The CPUC strongly disagrees with the assertion that it was a "lack of supply", rather than the exercise of market power, market manipulation and abuse that caused the energy crisis of 2000-2001.
- Continuation of the "must-offer" provision is critical o the success of any market mitigation effort.
- The other market mitigation measures proposed by the California ISO are also necessary to ensure a working, competitive marketplace and are fundamental features of all existing RTOs.
- Local market power mitigation identical to that used by PJM should be adopted for the California ISO
- Market mitigation measures do not discourage investment in new generation.

Need for Regional Coordination

- FERC itself seems to be recognizing that "one-size does not fit all" and has approved differing market structures for each of the three RTOs in the Western Interconnect
- The Seams Working Group is one forum that can help to address coordination between RTOs.
- FERC must realize that the Western RTOs are not the sole representative of the public interest in the West and that States have equally valid concerns that need to be considered.
- FERC should work on regional issues not only with the Seams Group but also with State sponsored groups such as the Committee for Regional Electric Power Cooperation (CREPC) and others

Should market monitoring and mitigation issues be decided on a regional, rather than on a California-only basis?

- Any West-wide market monitor should complement, rather than replace, the existing California ISO monitoring and mitigation duties.

COMMENTS OF THE
CALIFORNIA PUBLIC UTILITIES COMMISSION
BEFORE THE HOUSE OF REPRESENTATIVES
COMMITTEE OF GOVERNMENT REFORM
SUBCOMMITTEE ON ENERGY POLICY
APRIL 8, 2003

INTRODUCTION

Thank you for the opportunity to offer written comments at today's hearing on the issues of the recent FERC refund decision and the on-going efforts to redesign the California electric market.

The California Public Utilities Commission (CPUC) regulates the three major investor-owned utilities in California[1] that collectively:

- Purchase about 80% of the energy consumed within the California ISO;
- Provide distribution services to about 90% of the customers (by load) in the ISO; and
- Own the vast majority of transmission assets comprising the current ISO grid.

Perhaps more importantly, it was the CPUC-regulated utilities that bore almost all of the substantial and unjustified overcharges for energy that resulted from the now proven manipulation of California's electric markets in 2000 and 2001.

In our comments we would like to address:

- The status of the current FERC refund proceeding; and,
- ISO redesign of the wholesale energy market in its Market Design 2002 proceeding (MD-02)

[1] Pacific Gas & Electric, San Diego Gas & Electric, and Southern California Edison

FERC REFUND DECISION

California is pleased with FERC's March 26th Staff Report that determined that California should be refunded about $3.3 billion in energy costs it paid due to the exercise of market power and market manipulation. The Staff Report, and FERC's accompanying decision, strongly confirmed California's contentions made over the past 3 years that the California energy market was subject to extensive market power and manipulation. The increased refund amount reflects adoption of the CPUC's contention that gas prices reflected in the mitigated market clearing price were too high owing to manipulation.

However, this decision still represents only the tip of the iceberg as to the amount of money that should be refunded to California. FERC currently has before it several outstanding issues and proceedings that could significantly change the amount of the refund to more accurately reflect the true cost of market power that California's economy and citizens had to bear over the past two years. Unfortunately, public statements made by FERC, either in already adopted decisions or public statements of Commissioners made during FERC meetings, make it unclear if California will receive the refunds to which it is entitled.

The following are areas where the CPUC and the State of California have recommended either changes to how FERC calculate refunds or remaining issues that FERC needs to address.

Make refunds effective from May 1st, 2000 not October 1st;

> Both the CPUC, in its briefs, and the FERC staff report, conclude that much of the market manipulation behavior that occurred violated pre-existing ISO and Power Exchange (PX) tariffs. Therefore, FERC is legally required to order refunds back to May 1st rather than the October 2nd date affirmed in the March decision. Despite the fact that this issue is still before FERC in the "100-day" proceeding, FERC's March decision states that: " Any future Commission findings of energy market manipulation that result from our ongoing review ***would not result in a resetting of the refund effective date in***

this proceeding [October 2nd], which is based on the requirements of Section 206 of the Federal Power Act…"

Apply the Refund Methodology to the State's Energy Purchases

In prior orders FERC has declined to extend the refund obligation to short-term purchases made by the State Department of Water Resources ("CDWR"). Whether to do so now is a pending issue in the "100 day" proceeding, as to which FERC did not issue an order on March 26. The evidence is clear that CDWR functionally stepped into the shoes of the soon-to-be defunct Power Exchange in January 2000, and CDWR transactions should be mitigated, just as functionally identical PX and ISO transactions are.

Allow California to receive its rightful share of any refunds ordered for market manipulation found to have occurred in the Pacific Northwest energy markets

In the Pacific Northwest (PNW) Refund Case FERC has indicated (although no order has yet issued) that it will grant refunds for bilateral purchases of up to 30 days in the PNW during a refund period of December 25, 2000 through June 20, 2001, based on the Staff Report's finding that PNW spot markets were affected by the California spot markets. However, the discussion at the March 26 FERC meeting indicated that FERC will explicitly reject the California Department of Water Resources claims for $1.5 billion in refunds for purchases from PNW sellers at PNW trading points. Instead, FERC will offer the relief only to PNW buyers. Such a result would have no basis in either law or equity. CDWR made many purchases from PNW sellers at PNW trading hubs, and such transactions should be treated identically to other transactions with such sellers and at the same trading points.

Find that long-term contracts entered into by California during this period were affected by market power manipulation

The FERC staff report concludes that market power abuses contributed to increased costs paid by California for the long-term contracts that it entered into during this time, a position taken by the CPUC in its Section 206 complaint. Although this item is still before the Commission, in public discussion of this item at FERC's March 26th meeting, FERC appears unwilling to find that these contracts are unreasonable.

Institute and diligently pursue the over 30 investigations (known as Order to Show Cause) into alleged market manipulation behavior proposed by FERC staff

The FERC Staff Report proposes over 30 investigations into market manipulation and market power behavior by energy generators and traders. FERC must institute and diligently pursue these investigations. To date, FERC has not stated, if and/or when, it would institute these proceedings.

Adopt FERC Staff recommended changes to FERC rules and market-based tariffs to prohibit further market manipulation

The FERC Staff report identified a number of proposed changes to better address and prevent market manipulation. FERC should adopt these recommendations.

Each of the above actions would have a significant effect in redressing the harms that California has suffered as a result of market power abuse as well as improving the operation of the wholesale energy market. We urge FERC to act on each of these requests.

MARKET DESIGN ISSUES

General Observations

California is strongly supportive of a workable, competitive, regional energy market for the West, something that the Western states have voluntarily worked to achieve over the past 20-years. Therefore in the West, FERC should focus on supporting voluntary efforts to improve coordination and provide the necessary framework—perhaps most importantly in the area of effective market monitoring and mitigation—in which regional institutions can develop.

FERC should not, and legally cannot, interfere into issues that are better addressed at the state level. This includes such issues as resource adequacy, transmission siting/planning, demand response, and ISO governance.

Equally important, as even FERC seems to realize, "a one-size fits all" approach to market design is unwise, particularly in the Western Interconnection.

There are currently three RTOs in the Western Interconnection, one operating (the California ISO) and two in development (WestConnect and RTOWest). Parties have invested enormous quantities of work and effort into proceedings specific to each RTO. . While many elements of each RTO are similar, in some cases the RTOs vary from each other in very

significant ways. Thus, as the Seam Steering Group-Western Interconnection ("SSG-WI") recently reported to FERC:

> The Commission has approved (on a conditional basis for RTO West and WestConnect) ***three different congestion management models for the three Western RTOs***. The California ISO and RTO West currently use or propose to use variations of financial rights, while WestConnect proposes a physical rights model.[2]

> Furthermore, in the WestConnect docket, FERC has stated that:

> "[B]ecause of the extensive efforts committed by industry participants to developing a framework for a sound RTO proposal here, we take this opportunity to clarify that it is not this Commission's intent to overturn, in the final Standard Market Design rule, decisions that are made in this docket."

> FERC reached a similar conclusion in its recent RTO West order, stating that:

> ". . . the Commission has no intention of "undoing" solutions developed by the RTO, and approved by the Commission, in order to "replace" them with an alternative solution that may ultimately be developed in the generic rulemaking."

The CPUC is heartened by FERC's recognition that "one size does not fit all" even within the Western Interconnection.

Indeed, the CPUC is more concerned that FERC grant to the California ISO the same flexibility to develop appropriate solutions that it has already granted to both WestConnect and RTOWest. The CPUC remains concerned that FERC is attempting to "back-door" its SMD proposal into the ISO's MD-02 proposal without allowing the California ISO the flexibility it needs to address unique local and regional concerns.

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[2] Report of the California ISO, The RTO West Filing Utilities, and the WestConnect Applicants Concerning Activities of the Seams Steering Group - Western Interconnection, at 12.

1. **What can FERC or the CAISO do to improve the stakeholder process?**

FERC should let the California ISO develop reasonable implementation schedules To some extent the CPUC shares the concerns of stakeholders with regard to the current ISO process. However, the CPUC notes that much of the concern may be the result of FERC seeking to impose unrealistic schedules upon the California ISO to implement market re-design. The result is to require ISO staff to simultaneously develop policy, design/procure software, develop tariffs, and seek shareholder input. The California ISO and PX were constructed hastily, under unrealistic deadlines, and without the organic growth through negotiation, compromise and evolution that characterized the NEPOOL and PJM pools. As we now know hasty action in the name of just "getting it done" is a recipe for disaster.

Similarly, FERC should defer to the California ISO to develop a stakeholder process that provides parties with a chance for meaningful input. As noted in the CPUC's comments in FERC's SMD proposal, all of FERC's various proposals for RTO stakeholder boards and advisory commitees are heavily weighted toward parties seeking high energy prices and seriously lacking in input from consumer groups, end-users, and states.

Any formal stakeholder process must include a critical role for the CPUC. FERC itself envisions states playing a prominent role in the SMD process. An example of a process that is working is the role that the New York Public Service Commission has in the New York ISO stakeholder process and New York ISO Board process.

The stakeholder process also needs to be more orderly in terms of prioritization of tasks. As an example, all major policy issues should be discussed and resolved before spending time and money on software development. Many stakeholders have expressed concerns that the

CAISO is rushing to commit huge funds (over $31 million) while many policy issues are still unresolved.

Finally, the CPUC strongly believes that the current governance structure of the ISO Board, unlike its predecessor, is independent, represents the public interest, and has actively promoted the development of a wholesale energy market that will not be subject to abuse and gaming.

2. Should the sequencing of MD-02 be changed? Specifically, should resource adequacy issues be resolved before other issues?

This question ignores the substantial efforts that the State of California has undertaken in the past two years, and continues to undertake, to procure energy resources. Accordingly, the ISO's MD-02 process can continue in parallel with on-going **state** efforts to address resource adequacy. This parallel effort allows each agency to focus on areas for which they have expertise and jurisdiction -- design of the wholesale energy market in the case of FERC and resource procurement/acquisition in the case of the CPUC. This parallel approach epitomizes the cooperative state-federal approach to electric market redesign that FERC Commissioners have consistently advocated. In California this parallel approach has been proposed to FERC by the California ISO and is strongly supported by the CPUC. To date, FERC has not acted upon this request.

This question also presupposes a role for FERC and the ISO in the area of resource procurement. The CPUC, as well as numerous other states and even entities such as the Edison Electric Institute, have strongly argued that resource procurement issues are best made at the state level. The CPUC has strongly opposed any attempt to federalize resource procurement through the implementation of a FERC-mandated resource adequacy requirement.

California is taking its resource procurement obligations seriously. Currently, California is procuring almost all of its energy needs through bi-lateral contracts with real-time energy purchases from the California ISO's real-time market being less than 5% of demand, well within the range of forecasting error and unexpected plant outages.

Over the past two years, California has entered into $43 billion of long-term contracts and promoted the building of several thousand megawatts of new generation under long-term contract.. As of January 1st, 2003, California's investor-owned utilities resumed the purchasing of their own energy needs, and the CPUC is in the process of restoring the utilities back to financial stability and creditworthiness. In its Procurement Rulemaking, currently underway, the CPUC is developing the long-term resource procurement plans that will guide utility purchases over the next 5 to 20 years. Interim decisions already issued by the CPUC have essentially allowed California's utilities to already procure almost all of their energy needs for 2003 and 2004.[3]

In 2003, the California ISO filed a motion with FERC to defer consideration of any resource adequacy requirement until November, 2003. This was based on the extensive and successful efforts of the State of California to address resource procurement needs. The CPUC strongly supported the ISO's motion and urges FERC to expeditiously adopt it.

As noted in our written comments to FERC on this issue, deferral would; allow California to address this issue at the state, not federal level; is consistent with Chairman Wood's statements to cooperatively work with the states to implement SMD; and recognizes the regional flexibility that FERC Commissioners have consistently advocated.

[3] As previously mentioned, the CPUC regulates about 90% of the load in the California ISO. The remaining 10% is served by municipal utilities for which both FERC (in its SMD proposal) and the ISO note that these utilities have traditionally procured sufficient resources, including reserves, to meet expected demand.

A more important issue regarding timing is FERC and the ISO's rush to implement both Locational Marginal Pricing and Congestion Revenue Rights (CRRs) absent the studies that would allow stakeholders to evaluate how they would be affected by these proposals. Although the ISO has committed to perform these studies, and has some of them underway, the ISO is rushing to commit funds to software development even though no studies using market bids under LMP have yet been completed. More information is needed about the relative cost and benefits of these proposals. Stakeholder concern is compounded by the fact that these changes require multi-million dollar investments in new computer and software.

3. **The crisis of 2000-2001 was, at root, caused by a lack of supply. Do current and proposed mitigation measures encourage of discourage investment in new generation? Should mitigation measures differ for generators with local market power? If so, how?**

The CPUC strongly disagrees with the assertion that it was a "lack of supply", rather than the exercise of market power, market manipulation and abuse that caused the energy crisis of 2000-2001. Although the supply-demand balance in the west was tight at times during the crisis, their were few if any instances in which there was insufficient supply to meet demand during the crisis of 2000-2001. This was amply demonstrated by the fact that as soon as FERC imposed price mitigation and lowered prices for periods of emergency situations declared by the CAISO, suddenly enough supply emerged to avert those emergencies. What this reveals is that there was sufficient supply to meet demand but there was not sufficient surplus supply to constrain the suppliers' market power. That is, tight supply and demand created conditions ripe for the exercise of market power. Suppliers recognized this opportunity and took advantage of it by physically and economically withholding available supply. Withholding was exacerbated by

extensive manipulation, as recently confirmed in the FERC Staff Report and California's filing in the "100 days" proceeding.

California's experience highlights how important to the success of any market mitigation is the continuation of the "must-offer" provision. This provision, which requires that generators offer their energy for sale whenever it exceeds their variable cost, mimics the outcome that one would expect in a competitive marketplace (where generators are competing on price) and is a vital safeguard to prevent physical withholding of capacity. Requiring all generators to meet a must-offer requirement is a reasonable condition to attach to their FERC-approved cost-based pricing authority. Although this condition is currently in the ISO's MD-02 proposal, it does not appear to be part of FERC's SMD proposal. Instead, FERC's SMD proposal appears to redefine and weaken the must-offer requirement to mean only that a generator under contract has to perform according to any contractual obligations. Thus it appears FERC is now accepting the concept that a generator could withhold capacity even in circumstances where it is uneconomical for him/her to do so.

The other market mitigation measures proposed by the California ISO are also necessary to ensure a working, competitive marketplace. While the CPUC has disagreed with the California ISO as to what levels these mitigation measures should be set at, the CPUC strongly supports the need for such mitigation measures as mitigated bidding, overall bid caps, and locational price mitigation. All of these features are fundamental features of other RTOs and must be in any California market redesign

The mitigation needs to be stricter in situations where a supplier is located in a transmission constrained area and does not face sufficient competition to discipline its bidding behavior. FERC authorized a local market power mitigation mechanism for the PJM market

which pays variable cost plus 10% adder in local market power situations. The CAISO requested FERC to grant it the same protection. However, FERC denied the CAISO's request. The CPUC strongly supports the CAISO's request for PJM 's local market power mitigation.

The CPUC believes that proper mitigation does not discourage investment in new generation. The CPUC believes that new generation should be encouraged through a bilateral contracting process, and not through the ISO's short run spot markets. As discussed above, the current and on-going activities of the CPUC and State of California has resulted in the financing and construction of new generation, and an on-going process (through the CPUC's Procurement proceeding) to encourage further development of new generation as needed.

4. **How important is it that the CAISO coordinate its market design efforts with the surrounding States? Is California in jeopardy of creating a market system that fails to efficiently integrate with the rest of the Western Interconnect?**

As noted in our general observations, FERC itself seems to be recognizing that "one-size does not fit all" and has approved differing market structures for each of the three RTOs in the Western Interconnect. As previously stated, such differences are both necessary and appropriate to address local and regional concerns and should be supported.

There is a need for coordination between RTOs in the West. The Seams Working Group is one forum that can help to address coordination between RTOs. The CPUC is supportive of the work of the Seams Working group, although we remain concerned over the lack of state input into this process. FERC must realize that the Western RTOs are not the sole representative of the public interest in the West and that States have equally valid concerns that need to be considered. FERC should therefore work on regional issues not only with the Seams Group but also with State sponsored groups such as the Committee for Regional Electric Power Cooperation (CREPC) and others.

Should market monitoring and mitigation issues be decided on a regional, rather than on a California-only basis?

While the CPUC is supportive of the development of a region-wide market monitoring capability, any West-wide market monitor should complement, rather than replace, the existing California ISO Market Surveillance Committee. At least for an interim period of several years as California attempts to recover from the recent crisis, an ISO-specific independent monitoring entity is an absolute necessity. Additionally, state regulatory agencies should be entitled to receive the same data as the market monitors.

5. **Does a policy of open access transmission increase competition in electricity markets? Does it have a positive impact on reliability? Does it encourage investment in new, environmentally beneficial generation?**

As previously mentioned, the CPUC has been a strong supporter of regional markets as a way to improve competition and reduce prices to end-users. However, as noted in the experience of the past few years, poorly designed markets, and the failure to adopt and enforce meaningful rules to prevent market manipulation and market power abuse (i.e. must-offer, mitigated bidding, price caps, etc.) can easily result in a market that can harm consumers.

This story is taken from opinion at sacbee.com.

Daniel Weintraub: Feds say generators didn't cause the blackouts

By Daniel Weintraub -- Bee Columnist - *(Published April 3, 2003)*

It was just before 10 a.m. on Jan. 18, 2001, when the people who operate California's electricity grid ran short of juice and started cutting off power to about 600,000 customers from Bakersfield to the Northern California border. Later that day, Gov. Gray Davis declared a state of emergency, and the state Senate voted to spend hundreds of millions of dollars in taxpayers' money to keep the power flowing as two big utilities edged toward bankruptcy.

The reason for the rolling blackouts on that day and six others during California's electricity crisis? According to the California Public Utilities Commission, five private generating companies withheld power that they should have sold into the grid. A PUC report published last September and given wide media coverage at the time purported to prove that the blackouts that brought the state to its knees would have been prevented had the generators only been willing to sell more electricity from their idled plants.

But a newly released, detailed review of those allegations by the Federal Energy Regulatory Commission has cast great doubt on the conclusions of the PUC study. The FERC report says the California analysis was based on faulty data, employed shoddy methods and ignored important information. In short, it was fatally flawed.

First, a caveat: The feds' conclusion that the generators didn't cause the blackouts doesn't absolve them of all wrongdoing. In fact, the report was hardly noticed when it was released last week because it came at the same time U.S. energy regulators concluded the California market was manipulated and customers here are due refunds of at least $3 billion.

But that's not necessarily a contradiction, especially if the market manipulation was more of a symptom than the cause of California's problems.

Think of the electricity crisis as the equivalent of a natural disaster, albeit a man-made one. It was like a public policy flood triggered by the confluence of a poor market design, lousy management and bad luck.

The private electricity generators, or some of them anyway, played the role of looters, taking advantage of a bad situation. The guilty should be punished. But their activity, according to federal investigators, was on the margin, amounting to $3 billion on a $50 billion problem.

This exercise in distributing blame is more than just splitting hairs. The more the generators can be made the scapegoats here, the less accountable will be the public officials who set this whole affair in motion. And the federal review of the PUC study shows just how desperate California's policy-makers have been to shift blame for the crisis away from themselves.

The federal review, the most thorough to date on this subject, said there was "no evidence" that

any of the generators withheld any meaningful amounts of available power during the hours California suffered blackouts in 2000 and 2001. The feds said the state study was "incomplete" and overstated the amount of power the generators had on hand.

Specifically, the federal analysis accounted for 87 percent of the megawatts the state study accused the five generators of withholding. The five were affiliates of Duke Energy, Dynegy, Mirant Americas, Reliant Resources and Williams Energy.

Most of the power the PUC said was withheld was unavailable because the power plants were shut down by outages. Some of the plants were in the process of starting up after an outage. Some where under control of the state's grid managers, or were located south of an infamous electricity transmission bottleneck and couldn't move their power to relieve shortages in the northern part of the state. But these are the sorts of details the PUC never bothered to examine.

The small amount of power for which the federal investigators could not account was insufficient to have caused the blackouts and was likely the result of rounding, reporting or recording errors rather than deliberate withholding, the report said.

Unlike the PUC, the federal investigators conducted an exhaustive, hour-by-hour analysis of every power plant in question. The probers requested 30 specific pieces of data for each relevant hour for each power plant.

On that one fateful day in January 2001, for example, the PUC claimed that about 750 megawatts were available but not generated for the benefit of the state's electricity users. The federal study, by contrast, accounted for all but 55 of those megawatts.

For one particular generator, the PUC claimed that 269 megawatts were withheld during a crucial hour that day. But the feds were able to account for 260 of those megawatts. Of the nine remaining megawatts, the generator had offered eight for sale to the state, but the offer had been turned down. That left a megawatt of potential power in doubt -- hardly the stuff of scandal.

None of this excuses the market manipulation that did occur and which apparently was responsible for boosting the profits of firms already benefiting, legally, from California's misery. But all the facts, not just the self-serving spin of California politicians and energy regulators, should be part of the record and understood before the state begins the difficult task of reshaping its energy industry for the 21st century.

About the Writer

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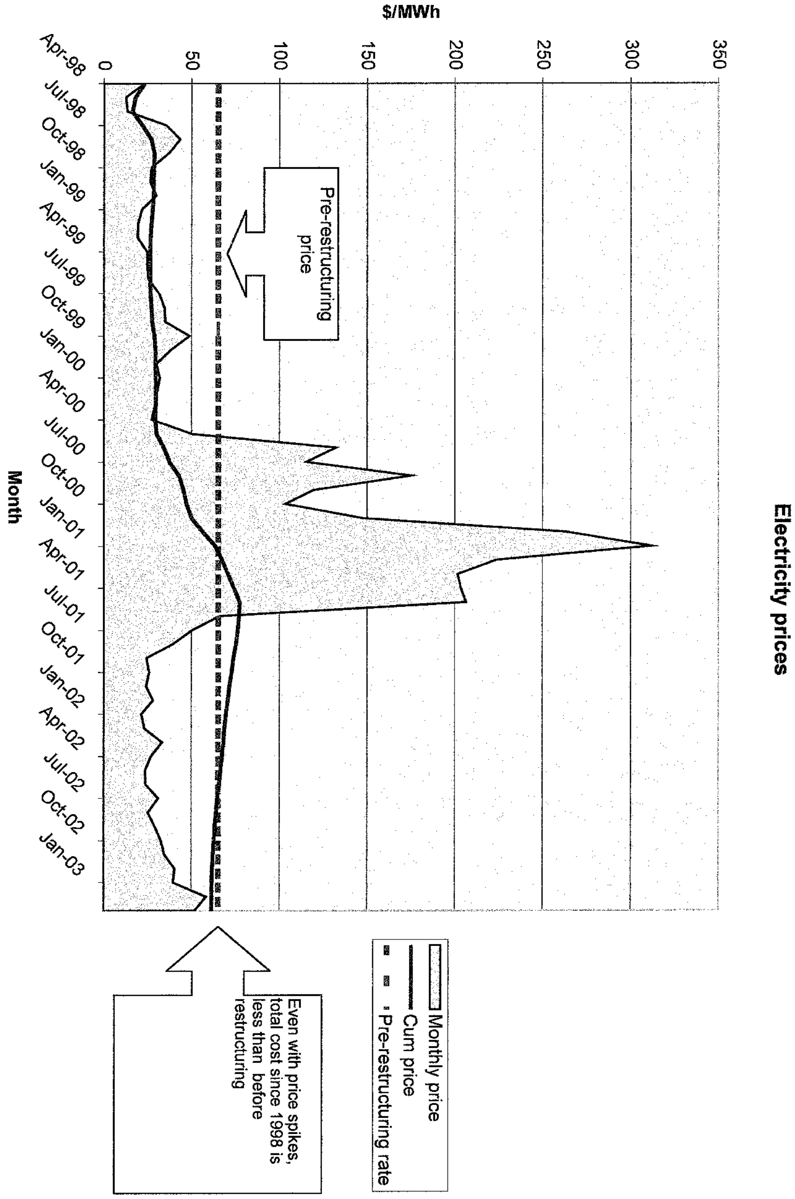
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50
100
150
200
250
300
350
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Month
Pre-restructuring price
Monthly price
Cum price
Pre-restructuring rate
Even with price spikes, total cost since 1998 is less than before restructuring